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THE UNIVERSITY OF GLASGOW,
From the Royal College of Surgeons in London*

CATALOGUE
OF
THE HUNTERIAN COLLECTION
IN
THE MUSEUM
OF
THE ROYAL COLLEGE OF SURGEONS
IN LONDON.

PART I.
COMPREHENDING
THE PATHOLOGICAL PREPARATIONS IN SPIRIT.



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CATALOGUE.

DIVISION I.

ILLUSTRATIVE OF THE ACTIONS OF RESTORATION AND OF DISEASE.

SERIES I. Union by the First Intention.

1. *Of the Blood in Vessels.*

No.

1. **A** COAGULUM of blood from the right auricle, ventricle, and pulmonary artery. The patient suffered from palpitations.
2. A similar coagulum from the aorta of the same subject.
3. A coagulum of blood from the vessels of a horse.
4. The crural artery and vein, from a patient in whom the right leg and thigh mortified. Both vessels are filled with coagulated blood.
5. The bifurcation of the aorta and vena cava, from the same subject. The cavity of the right iliac artery is filled with coagulated blood; but the vein appears to be in a natural state.
6. A portion of an artery containing a coagulum which is adhering firmly to its surface.

2. *Blood extravasated in consequence of Accident.*

7. A section of the spleen of a man, ruptured in consequence of an injury : after which he became faint and low ; and the languor increasing, he died. The abdomen contained a considerable quantity of coagulated blood.
8. A very singular coagulum of blood of considerable dimension and extent ; apparently formed within the upper part of the intestinal canal : having numerous impressions on its surface, similar to what might be expected to be produced by the valvulæ conniventes.
9. The upper lip of an adult subject, on which the operation for hare-lip had been performed.
10. A longitudinal section of the tendo Achilles of a dog which had been broken transversely, and united by extravasated blood. The uniting substance had not been converted into true tendon, although it has acquired a fibrous appearance.
11. The other section of the same tendon.
12. The end of the crural artery after amputation ; containing a coagulum which Mr. Hunter believed he had injected.
13. A testicle, upon the body of which is a coagulum of blood adhering and injected.

3. *Blood extravasated in consequence of Inflammation.*

14. A section of the testicle of a man, extirpated at St. George's Hospital by Mr. Gunning. The tunica vaginalis being filled with fluid was supposed to be a hydrocele ; but the fluid proved to be bloody serum. The body of the testicle and the tunica vaginalis were furred over with red coagulated blood, which proved to be highly vascular when the parts were injected.
15. The corresponding section of the same testicle. The coagulated blood is turned down in two places. [This section, as well as No. 14, shows a very distinct circumscribed deposition, of a yellowish-white colour, in the anterior and superior part of the testicle.]
16. Part of the tunica vaginalis belonging to Nos. 14 and 15, with a portion of the coagulum turned down, which is minutely injected. Another portion of the coagulum is seen hanging down loose, but not injected.

SERIES II. Adhesive Inflammation.

1. *Lymph extravasated in consequence of Inflammation.*

17. Veins inflamed in consequence of venæsection. The cephalic vein is filled with coagulated lymph.
18. Dura mater inflamed, in consequence of being perforated in the operation of the trepan; and having a layer of coagulated lymph on its inner surface.
19. A section of a heart, the external surface of which is furred over with coagulated lymph.
20. A portion of the heart of an ox, showing a very thick layer of coagulable lymph thrown out on the surface in consequence of inflammation.
21. Coagulated lymph of considerable thickness and density, found in an abscess in the lungs. It has no appearance of being organized.
22. A portion of inflamed peritonæum; injected, dried, and put into oil of turpentine, to show its vascularity.
23. A portion of peritonæum in an inflamed state, prepared in the same manner; showing an elongation of coagulated lymph from its surface, which had become vascular.
24. The peritonæal coat of a portion of human intestine in an inflamed state, to show its vascularity; it likewise exhibits small portions of coagulated lymph attached to it, each by a narrow neck, through which they are supplied with vessels.
25. A portion of small intestine which had been strangulated about twenty-four hours; showing several small portions of coagulated lymph on the surface, some of which are injected from the vessels of the intestine.
26. A portion of small intestine in an inflamed state; injected, to show its vascularity.
27. Peritonæum inflamed, and coagulable lymph thrown out on its surface, in consequence of irritation of the bladder. That viscus is laid open from behind, and shows that its inner surface had been in an inflamed state.
28. Coagulated lymph found in the human uterus. Presented to Mr. Hunter by Dr. Baillie.
29. A portion of a patella and its ligament, having coagulated lymph thrown

out on their inner surface, and injected. Part of the extravasated lymph is turned down, to show that it also is injected.

30. Muscles from a man, to show that their texture is much altered by the extravasation of coagulable lymph. The muscular fibres are rendered indistinct in consequence of great effusion.
31. Sections of muscle with coagulated lymph extravasated, and apparently injected.

2. *Firm Adhesions.*

32. The pericardium adhering to the left ventricle of the heart in two places.
33. A section of the heart of a man who died of a fever, and had violent pain and oppression of his breast. The whole surface of the heart is covered with gluten or coagulable lymph, which produced adhesions between the heart and pericardium.
34. Very firm adhesion between the heart and pericardium.
35. Adhesions between the heart and pericardium; injected, dried, and put into oil of turpentine.
36. Adhesions between the lungs and pleura; injected from the pulmonary artery: prepared in the same manner.
37. Adhesions between the pleura and lungs; the adhesions are elongated, and injected.
38. Adhesions between the lungs and pleura; injected from the pulmonary artery.
39. Adhesions between the lungs and pleura (apparently that portion of the pleura which covers the diaphragm). The lungs are well injected from the pulmonary artery, but the injection does not appear to have extended beyond the surface of the lung.
40. The lung of a dog adhering very firmly to the pleura, around a penetrating wound intentionally made into the cavity of the thorax. The adhesion has completely closed the internal orifice of the wound, and effectually excluded all communication with the external surface.
41. A layer of coagulable lymph thrown out between the liver and diaphragm, and uniting them together.
42. A portion of small intestine; where adhesions had been formed, apparently in consequence of ulceration through its coats.

43. Several convolutions of the intestines of a young woman who died in consequence of violent inflammation of the bowels, which occasioned them to adhere almost universally. They are injected, and show that the adhesive matter had become vascular.
44. A very firm coat of coagulated lymph from the cavity of the human abdomen, in consequence of peritonæal inflammation coming on after tapping. The patient died on the eighth day after the operation. [This coagulum not only lined the parietes of the abdomen, but processes were continued from its inner surface, between the convolutions of the intestines, to a considerable extent.]
45. A portion of an exceedingly thick layer of coagulated lymph, thrown out in consequence of inflammation, which was found covering the intestines and other viscera of a female aged sixteen.
46. A portion of the colon of a female sixteen years of age. The intestine is adhering to the peritonæum. The latter is very much thickened, in consequence of the effusion of coagulable lymph, so as to have appeared like the abdominal muscles.
47. The uterus of a female sixteen years of age, in whom the cavity of the abdomen was filled with coagulated lymph uniting the different parts together. In this preparation the uterus is shown imbedded in that mass.
[It is probable that the three preceding preparations were from the same individual.]
48. Adhesions of two portions of the mesentery of a turtle, leaving a space between them.
49. A portion of intestine with firm adhesions, which are much elongated in consequence of the peristaltic motion.
50. Tendons united by the adhesive inflammation.

3. *Firm Adhesions of Foreign Parts.*

51. The spur of a chicken transplanted and uniting by the first intention to the leg of another chicken. The union had not yet become very firm. This experiment was frequently unsuccessful, in consequence of the nature of the parts being unfavourable for such union.
52. A spur taken from the leg of a young cock, and transplanted on the leg of

a hen-chicken. The spur became firmly united, but continued of a small size.

53. The spur of a hen-chicken transplanted on the leg of a young cock, which took root, and grew as fast, and to as large a size, as the proper spur on the cock's other leg.
54. The testicle of a cock adhering to the mesentery of a hen. The testicle is indicated by a bristle.
55. A portion of the intestine of a hen and the testicle of a cock. The latter has become adherent to the intestine, and also to the mesentery. Vessels in the uniting medium are injected from those of the intestine, and extend as far as the surface of the testicle.
56. A similar preparation. The testicle is adhering chiefly to the peritonæum lining the abdominal muscles. There is also a small but firm adhesion between the testicle and a portion of intestine. The connecting medium is well injected.
57. A human tooth, introduced immediately after extraction into the comb of a cock, to which it has become firmly united. The head of the animal has been injected, and a section made to show the mode of union, and the vascularity of the uniting medium. Adhesion has taken place generally, and a vascular growth has extended into the cavity of the tooth.
58. The opposite section, or counterpart, of the same comb and tooth.
59. Two sections of the head of a cock, prepared in a similar manner. Vessels here (as in No. 57) are seen passing into the pulp of the tooth.

4. *Parts thickened in consequence of Inflammation.*

60. A portion of the skin of a rein-deer, in which may be observed the nidi of three œstri; each cell or nidus having a small aperture communicating with the external surface.
61. Another portion of the skin of a rein-deer, showing a nidus laid open, to expose the œstrus.
62. An oak leaf; showing several tubercles or swellings, which are the nidi of insects. (*Cynips quercus folii*.)
63. A portion of the human spleen; showing a considerable thickening of its capsule, in consequence of inflammation.

64. A section of a nerve from the leg of a man who had a very diseased tibia. Violent inflammation came on, of which he died. This nerve had become (apparently) extremely thickened and hard, and also very vascular; and the injection having succeeded well, the nerve was sliced down in the direction of its fibres, then dried, and put into oil of turpentine.
65. The other section of the same nerve.

5. *Internal Parts not inflaming so readily as External.*

66. A needle passing from the second cavity of the stomach of an antelope through the diaphragm and pericardium.
67. A portion of the second cavity of the stomach of an ox, in which may be observed two large pins perforating the septa of the cells without having occasioned any visible inflammation.
68. A portion of the second cavity of the stomach of an ox, in which a nail has perforated the septa of the cells in a similar manner, without having produced any visible effects of inflammation.
69. A portion of the second cavity of the stomach of a camel, having portions of iron-wire piercing the subdivisions of the cells, without having produced any signs of inflammation.
70. A portion of the stomach of a cod-fish (*Gadus ^{Morrhua} Merlangus*) which has a sharp spiny fish-bone protruding through its coats. Part of the protruded surface of the bone still shows the effects of the adhesive inflammation which attended its progress.

6. *Internal Passages for extraneous Matter throwing out Coagulable Lymph when the Inflammation is violent.*

71. A portion of jejunum inflamed and thickened, with coagulable lymph thrown out upon its internal surface. About eighteen inches of the intestine were in a similar state. The patient died of cancer of the stomach. The symptoms had continued for twenty-five years. [See No. 656.]
72. A portion of inflamed intestine. Coagulable lymph is deposited on its inner surface. The intestine is considerably thickened.
73. A portion of human small intestine which had been strangulated. Coagulable lymph is thrown out, both on the internal and external surface of the intestine. Ulceration has taken place in the mesentery.

74. A portion of the ilium of an ass ; to show the result of an experiment made to excite inflammation. The intestine has been injected by the veins.
75. Another portion of the same intestine ; also injected by the veins.
76. Another portion of the same intestine ; the arteries injected.
77. Another portion of the same intestine ; the arteries and veins injected. A small patch of coagulated lymph adheres to its inner surface.
78. Another portion of the same intestine ; the arteries and veins injected. In this specimen the coagulating lymph has been deposited in much greater quantity.
79. The beginning of the cornua uteri, and part of the vagina of a young ass ; on which experiments were made to produce inflammation upon the inner surface, by injecting a strong solution of corrosive sublimate into the vagina. The inflammation was followed by an exudation of coagulating lymph ; an effect which is only produced on the inner surface of a canal opening externally, by a very violent degree of inflammation.
80. A ramified portion of coagulated lymph coughed up from the human lungs.

SERIES III. Suppuration.

1. *Suppuration from Inflammation of Natural Secreting Surfaces.*

81. The anterior part of the penis of a person who had a gonorrhœa at the time of his death. The urethra is laid open, and bristles are put into the enlarged lacunæ.

2. *Suppuration in consequence of a Breach of the Solids not Healing by the First Intention.*

82. A compound fracture of the tibia and fibula towards their upper extremities. The tibia is extremely shattered ; and suppuration has taken place in consequence of the injury, and of the wound in the soft parts not having united by the first intention.

3. *Pus.*

83. Coagulated lymph found in the cavity of an abscess.
84. A similar specimen, apparently from the same abscess.

4. *Suppuration without Inflammation.*

85. Vertebrae of the loins from a case of lumbar abscess, in which suppuration was supposed to have taken place without inflammation.

SERIES IV. Ulceration.

1. *Ulceration without Suppuration.*

86. The parts which were situated between an encysted tumour and the skin: they have become thinner in consequence of the pressure of the tumour, which was formed on the origin of the rectus abdominis muscle of the right side; and the man, who was a patient in St. George's Hospital, died in consequence of its being opened.

2. *Ulceration with Suppuration.*

87. The internal surface of an abscess next to the skin, in which ulceration was going on to bring it to the surface. This specimen shows the coagulable lymph still adhering to the inner surface of the parietes of the abscess.
88. The integuments covering an abscess, in which ulceration has almost made its way through the skin. The part at which the abscess pointed is very evident on the external surface.
89. A portion of skin to show the orifice by which an abscess had opened.
90. The inner surface of an abscess in the knee-joint, which had no disposition to heal, and became fistulous: the parts are injected.
91. The bottom of a sinus of the fistulous canal, noticed in the description of the preceding preparation.
92. Another portion of the same fistulous canal.
93. Part of the external parietes of an abscess in the leg.

3. *Ulceration of Internal Surfaces.*

94. A section of the septum nasi of a horse which died of the glanders. The membrane is so much ulcerated as to expose the cartilage of the septum in several places.

95. One of the turbinated bones of a horse which died of the glanders. It is also ulcerated as in the preceding specimen, and in one situation the bone is exposed.
96. Ulceration of the inside of the trachea and larynx in consequence of disease in the lungs. The tonsils also are much ulcerated.
97. A portion of the stomach of a lady twenty-two years of age, in which ulceration has formed a rounded opening through all its coats. There are evident marks of inflammation on its external surface.
98. A portion of the œsophagus, from the same subject, in an inflamed state.
99. A portion of small intestine, showing lacteals enlarged in consequence of diseased mesenteric glands. The intestine is ulcerated in spots, and the lacteals are filled with opaque matter.
100. The termination of the ilium and beginning of the colon from a person who died of diarrhœa. The inner surface of both ilium and colon is ulcerated.
101. Another portion of the colon of the same person, showing similar ulcerations.
102. An abscess opening externally, and also into the cavity of the small intestine.
103. A portion of the vagina, in which ulceration has formed a communication between it and the bladder.
104. The coats of the bladder ulcerated entirely through, at its posterior part, above the right ureter.

4. *Ulceration in consequence of Death in a Part.*

105. Ulceration beginning to take place round the edge of a slough, after the application of a caustic.
106. A portion of the skin of the scrotum, on which caustic had been applied for the cure of a hydrocele.
107. Small-pox pustules beginning to appear, upon the foot of an infant: the blood-vessels are injected.
108. A portion of skin with small-pox pustules further advanced: the blood-vessels are injected.
109. A portion of skin with small-pox pustules.
110. Small-pox pustules on the face of a child.

SERIES V. Granulation.

1. *Granulations of Muscle and Cellular Membrane.*

- 111. Granulations on the surface of an ulcer on a man's arm : injected.
- 112. A granulating sore from a man's arm : the part is injected.
- 113. An ulcerating and granulating sore on the leg : the vessels are injected.
- 114. A granulating sore from a man's leg. The vessels are injected, which shows the surface to be highly vascular.
- 115. An ulcerating sore of the leg : the part is injected.
- 116. A granulating sore on the calf of the leg : injected.
- 117. A sore which had continued a long time in an inflamed state. The increased action had caused the hair to grow in greater quantity on the skin immediately surrounding it.
- 118. Granulations : injected, dried, and put into oil of turpentine.
- 119. A cicatrizing wound, prepared in the same manner ; to show the greater vascularity of the newly-formed parts.

2. *Granulations of Tendon.*

- 120. Granulation of a tendon after amputation.
- 121. Granulation of a tendon after amputation.

3. *Granulations of Bone.*

- 122. A granulating sore on a man's arm. In the middle of the sore is a portion of the surface of the bone exposed, on which, apparently, there are granulations.
- 123. A compound fracture of the tibia. The limb has been injected, and shows the granulations both from the bone and the soft parts to be highly vascular.
- 124. The joint of the ankle to show that the cartilaginous surface of the tibia is in most places absorbed ; and granulations thrown out from the surface of the bone.

4. *Unhealthy Granulations.*

- 125. Unhealthy granulations from the surface of the stump of a finger, in consequence of which, amputation was performed a second time.

5. *Union by means of Granulations.*

126. The lower part of the mouth of a woman who died in child-bed, and had been delirious for some time previously. The tongue on the right side adheres to the cheek, and to the under lip in two different places. One of the adhesions is about half an inch in breadth, the other less. A little nearer to the apex than the frænum, the lower surface of the tongue adheres to the gum on the inside of the incisors; and on the left side its edge adheres very firmly to the gum on the inside of the semi-grinders. By injecting the parts by the lingual and genial arteries, these adhesions were also well injected.
127. Tendo Achilles united by granulations: the part injected.
128. The tendo Achilles of an ass, which had been divided and again united. The blood or uniting medium has only become a firm mass, not yet fibrous.
129. A longitudinal section of the tendo Achilles of an ass, which had been divided transversely, and then allowed to unite. The uniting substance is still distinct, not being yet completely converted into tendon.
130. The other section of the same tendon.
131. The tendo Achilles of a deer which had been divided transversely, of which a longitudinal section is made to show that the uniting medium between the divided extremities is still distinct, and not completely converted into tendon.
132. A similar preparation of the tendo Achilles from a deer. The uniting substance has acquired the true appearance of tendon.
133. The other section of the same tendon.

SERIES VI. Cicatrization.

1. *Cicatrization of External Parts.*

134. A sore cicatrizing: a section.
135. The cicatrices of two sores, on a portion of skin.
136. A portion of skin showing a sore cicatrized. The cuticle is partially separated from the surface by maceration, and turned down to show the different appearance of the old and new cuticle.

137. A sore cicatrized. The distinction between the old skin and the new is remarkably clear and well defined.
138. A portion of skin which formed the margin of an artificial anus; a consequence of an operation for bubonocoele in a man (an Italian) at St. George's Hospital. This portion of skin was removed by excision, with the view of closing the opening by means of the contraction of the granulations: the operation did not entirely succeed, in consequence of the fæces being protruded into the wound.
139. An opening through the prepuce, which had been formed by ulceration, cicatrized.
140. The cicatrix on the surface of the stump of an arm after amputation. It shows how very much the granulations must have contracted; the cicatrix being reduced to about half an inch in diameter.
141. A similar preparation of the stump of a thigh.
142. The stump of a leg after amputation, whose surface is nearly cicatrized.
143. A cicatrix on the skin of a fish, (apparently the cod,) which shows the effect of the contraction of the granulations in lessening a surface on which new skin is to be formed, and in producing a radiated appearance round the cicatrix.
144. A dace, showing the production of a fibrous deposit on a surface whence the scales had been rubbed off.

2. *Cicatrization of Internal Passages.*

145. A portion of the septum nasi of a horse, which had been ulcerated in consequence of the glanders. Some of these ulcers are entirely cicatrized; others nearly so. This preparation shows in a remarkable degree the effect of the contracting power of granulations in producing a radiated cicatrix.

3. *Parts not being destroyed by either Inflammation, Suppuration, or Ulceration.*

146. Lymphatic inguinal glands which had gone through all these processes without being destroyed. They are from a negro; and it may be observed that the rete mucosum underneath the cicatrix has been reproduced.

SERIES VII. Fractures of Bones.

1. *Extravasation to produce Union.*

147. A simple fracture of the os humeri. The coagulated blood between the broken ends, which is to produce their union, is very evident; and is marked by bristles.
148. A section removed from the last preparation. The coagulated blood is also here seen; and is marked by bristles.
149. An extensive fracture of the os femoris near its lower extremity, where adhesions are seen from extravasation; as also some of the surface granulating.
150. A section of a tibia and fibula fractured near their lower extremities. The bones are not united: at the broken ends the coagulated blood is very evident. The parts are injected.
151. The other section of the same tibia.
152. A fracture of the tibia. The coagulated blood between the broken ends appears to be injected.
153. A fracture of the tibia united by coagula. A splinter is displaced, and appears to have answered the purpose of a splint to the other two portions of the fractured bone.
154. A portion of the fractured skull of a boy. This was removed by the crown of a trepan. The edges of the fissure are united by a soft substance.
155. Ribs after simple fracture, not united. The broken extremities are but little displaced.
156. A section of the os humeri of an ostrich, which had been fractured and united, but the uniting substance not ossified.
157. A section of a fractured ulna (not human) where the two fractured ends are in direct apposition, and united by the surrounding parts having taken on the adhesive and ossific inflammation.
158. The ulna of a fowl which had been fractured. The callus had become cartilaginous, which state is to be seen in those places that are not yet ossified.
159. A longitudinal section of an os humeri, with a simple fracture united. It

is injected, and made transparent by being steeped in an acid, dried, and put into oil of turpentine, to show the greater vascularity of the callus.

The remaining preparations in this subseries have been prepared in a similar manner, and with the same view.

160. A section of a tibia which had been fractured, and completely united. It shows that the medullary cavity of the bone is interrupted by the callus.
161. A small section of a callus from a simple fracture. The bony matter deposited by the ossific process, and shooting into the soft parts, is seen at the lower part of the preparation.
162. An oblique section of a fractured bone, in which a considerable quantity of newly-formed bone is seen surrounding the fractured part.
163. A portion of callus from a fractured bone. Two small spots of ossification are seen in the middle of the soft callus.
164. A preparation of the same kind, in which the ossification is more extensive.
165. A section of a callus, to show its vascularity.
166. The lower extremity of a fractured tibia from a man who was a patient, with a compound fracture, in St. George's Hospital. The sore never healed, nor could the man bear any weight on the limb, probably in consequence of the bone having united by so small a surface. The leg was amputated on this account.

2. *Union by Granulation.*

167. A section of a radius from a case of compound fracture. The two portions of the bone are not in their natural position ; and a small detached splinter of dead bone may be observed in the soft newly formed substance which unites them.
168. The other section of the preceding preparation.
169. A section of a fractured metacarpal bone from a case of compound fracture. Soft substance is interposed between the broken ends, which are not in their natural position.
170. The other section of the preceding preparation.
171. A simple fracture of the os femoris. The lower portion of the bone is drawn up behind the upper portion, as is usually the case in oblique fractures of that bone. Union has not taken place, but a thin layer of

granulations is formed on the surfaces of the bone in apposition ; and the surrounding soft parts are formed into a cavity. This, had the patient lived, would probably have terminated in an artificial joint.

172. A fractured patella united by ligament, which union is supposed to have been effected by granulations without suppuration. There appears to have been a fracture of the lower portion of the patella subsequent to the original fracture.
173. A section of the upper part of the femur and of the os innominatum of a man, in whom the head of the femur was broken off and did not unite. The whole of the neck has been absorbed ; the capsular ligament is thickened and shortened ; and ligamentous substance is formed between the two broken surfaces.
174. The other half of the preceding specimen.

3. The above-mentioned Union not taking place.

175. The right os humeri of a man, sixty-eight years of age, whose arm had been fractured four years before his death, and a new or false joint had been formed.
176. Small bodies, found detached in the cavity or false joint between the ends of the fractured os humeri No. 175. They are thirty or forty in number.
177. A section of a tibia from a case of simple fracture not united. A loose splinter of bone interposed between the broken extremities has prevented, and probably would have continued to have opposed, any firm union of the fracture.
178. A portion of rib from a cow, fractured, and not united. The same circumstance as in the preceding specimen appears to have prevented the union.
179. The fibula of a man who had a compound fracture of the leg ; where there is an attempt towards the formation of a new or false joint. [See No. 190.]
180. The os humeri of a large monkey which had been fractured. The bone has not united, but an artificial joint with a capsular ligament is formed between the two fractured portions. The opposing surfaces of the bone are covered by a thin tendinous expansion, as is the case in artificial joints generally.

181. The femur of a dog that has been fractured and displaced, and a new capsular ligament subsequently formed between the upper portion of the femur and the head of the tibia. The lower portion of the femur is dead and exfoliating.
182. A portion of the humerus of an ostrich which had been fractured, and not uniting, an artificial joint was formed. The ends of the bones have become extremely smooth. Bristles are placed in the cut edges of the new capsular ligament, to show its extent.
183. A section of the fractured femur of a cock. The broken ends are displaced, but are united laterally by soft substance interposed between them.
184. The other section of the preceding preparation.

4. *Mode of Union of Cartilage.*

185. A simple fracture of the cartilage of a rib united by bony substance deposited between the broken extremities ; which have not been reduced to their natural position.

SERIES VIII. Diseases of Bone.

1. *Inflammation of Bone.*

186. A section of that part of a femur which remained after the limb was amputated, to show how completely the periosteum separates from the bone in inflammation ; a fact almost always observable after amputation.
187. A section of an os femoris, showing a separation of the periosteum after amputation, as in the last preparation.
188. A small portion of bone with its periosteum, in which ossific inflammation has taken place.
189. A portion of femur with its periosteum ; the latter is thickened and ossified at the part where exfoliation was about to take place.
190. Part of the tibia of a man, from a case of compound fracture at St. George's Hospital ; to show the periosteum thickened and ossified. [No. 179, is the fibula from the same limb, in which there was an attempt

towards the formation of a false joint; which throws some light on the protracted nature of the case.]

191. A section of a tibia, thickened in consequence of new bone being deposited on its external surface. The newly formed bone is perfectly distinct from the original bone; its fibres are parallel and perpendicular to the surface on which they have been formed.
192. A section of a tibia, showing nearly the same circumstances, in consequence of a severe wound.
193. A section of the os femoris of a lion, incrustated over with bone, in consequence of ossific inflammation.

2. Exfoliation of Bone.

a. Exfoliation from Accident.

194. Part of the femur from a case of compound fracture, the cure of which was retarded in consequence of there being a dead portion of bone to exfoliate. This piece of bone is exposed at the posterior part of the femur; and a fistulous opening communicating with the cavity which contains it, is seen above the inner condyle. [The broken end of the superior portion of the femur is rounded off, apparently preparatory to the formation of a false joint.]
195. The end of a femur on which granulations are forming after amputation. A dead piece of bone may also be seen beginning to exfoliate.
196. The end of the os femoris from a stump after amputation, beginning to exfoliate. [The actual cautery had been applied to its extremity to accelerate the process.]

b. Exfoliation in consequence of Death being produced by the actual Cautery.

197. A section of the shank-bone of an ass, from which a portion of bone was about to exfoliate. The granulations from the living bone immediately surrounding the dead bone are beginning to ossify.
198. A similar preparation, from which the sequestrum has been removed, exposing the cavity from whence the dead piece of bone came.
199. A preparation of the same kind, in which the dead portion of the bone is detached, but remains inclosed in a case of new bone that is formed

over it. A fistulous canal is exposed, extending from the cavity in which the dead bone lies, to the surface of the granulations.

- 200. A similar preparation.
- 201. A similar preparation. The aperture of the cavity containing the sequestrum is almost reduced to the breadth of the sinus leading from it to the external surface.
- 202. A similar preparation.
- 203. A section of the bone of an ass's leg, from which an exfoliation has taken place; and the cavity from which it separated is filled up with new bone.
- 204. The other section of the same bone.

c. Exfoliation in consequence of Disease.

- 205. A transverse section of a tibia, part of which was about to exfoliate. The granulations are seen extending between the dead and living bone, following the track of the separation.
- 206. Exfoliation of the lower extremity of a fibula. The bone is injected, and shows clearly the distinction between the living and dead parts.
- 207. A portion of bone exfoliating from the middle of the lower articulating surface of a tibia.
- 208. Exfoliation in the ankle-joint. The astragalus is dead, and a great proportion of it absorbed.
- 209. A similar preparation, showing the os naviculare, and one of the cuneiform bones dead, denuded of cartilage, and the former in great part absorbed.
- 210. Part of the astragalus become dead, and separating.

Sections of Bone in Oil of Turpentine, showing the living parts injected; the dead not.

- 211. A section of an astragalus.
- 212. Another section of the same bone.
- 213. A section of an os calcis.

d. Internal Exfoliations. [Necrosis.]

- 214. A section of a tibia, showing a large cavity in it lined with granulations, in which lay a dead piece of bone that had exfoliated internally: a portion

of the dead bone remains at the lower part of the preparation, marked by a bristle.

215. The other section of the same tibia, in which the remainder of the sequestrum is left. Some fistulous openings are seen leading from the cavity in which the dead bone lies, and communicating with the surface of the ulcer through the newly formed living bone. These openings are also marked by bristles.

e. Separation of a whole Bone taking place.

216. The extremity of a thumb laid open, exposing the last phalanx and part of the second. The whole of the last phalanx is dead; but granulations have formed between it and the joint, so that it might have been removed without opening into the joint, or injuring the second bone.
217. The metacarpal bone of the right fore-finger, showing the appearances preparatory to exfoliation, in consequence of a severe bruise.
218. Shows the appearance of an ulcer over a bone which is exfoliating.
219. A great toe, the second bone of which had become dead, and is marked by a bristle. It is surrounded by granulations as in the last preparation, so as to be separated both from the metatarsal bone, and from the last bone. It has been pushed from its natural situation in its progress towards the external surface, and much reduced in size by the absorbents of the surrounding granulations.
220. A great toe, in which there are some pieces of dead bone. [The living bone surrounding the sequestra has been tinted with a red colour, in order to show more clearly the distinction between the living and the dead bone; but not injected.]

3. Separation of Cartilage.

221. Bones of the carpus: the cartilage very much absorbed.
222. The cartilage separated from the end of a metacarpal bone.
223. A section of one of the condyles of the femur, in which ulceration of the bone behind the cartilage has taken place. From a man at St. George's Hospital, who had bony tumours in the thorax.
224. The cartilage separated from the lower end of a femur.

- 225. The patella adhering to one of the condyles of a femur, showing that cartilaginous [articulating] surfaces are capable of contracting adhesions. It shows also that a considerable part of the cartilage of the joint has been either exfoliated or absorbed.
- 226. Exfoliation of cartilage from one of the condyles of a femur.
- 227. One of condyles of a femur in which the cartilage is almost entirely separated from the bone. From a case of white swelling of the knee.
- 228. The patella from the same knee as the preceding preparation.
- 229. The cartilage separating from one of the condyles of a femur.
- 230. A similar preparation. [The surface of the bone is tinted red, to show the separation of the cartilage more distinctly.]
- 231. One of the condyles of a femur, from which a considerable portion of its cartilage is removed, and coagulable lymph is thrown out to cover the surface of the bone in its place.
- 232. The patella of a man who died after having bruised his knee. The cartilage is cracked or split in various directions, vertically, in the course of its fibres.

SERIES IX. Diseases of Joints.

1. *Stages preparatory to Anchylosis.*

a. *By means of Coagulating Lymph.*

- 233. The lower extremity of a radius; its cartilaginous articulating surface is absorbed, and coagulable lymph thrown out from its surface preparatory to ankylosis.
- 234. The lower end of an os femoris with the patella, showing two elongated adhesions by which they are united.
- 235. A string of coagulated lymph in the joint of the knee, producing adhesions between the two opposite sides.
- 236. The lower end of a femur from which the cartilage is almost wholly absorbed; and much coagulable lymph is deposited on different parts of the joint.
- 237. A knee-joint, showing the whole of its inner surface lined by coagulated lymph.

238. A section of a knee-joint nearly united by soft union.
239. A section of a knee-joint united by soft union. Bristles are placed in the uniting substance.
240. A section of a knee-joint united in part by soft union. [This and the two preceding preparations appear to be parts of the same knee.]
241. The lower articulating surface of the tibia covered by coagulated lymph.
242. A section of the lower extremity of the tibia from a case of compound fracture. The fracture communicated with the ankle-joint. The two portions of the bone are united by extravasated blood like a simple fracture: the uniting substance between them is marked by bristles. A thin layer of coagulated lymph is also seen on the cartilaginous articulating surface, thrown out from the line of fracture in the cartilage.
243. The other section of the preceding preparation.
244. An astragalus and os naviculare united, as in the last preparation, without the absorption of cartilage.
245. An os calcis and astragalus partly united by soft union. The cartilages of these bones are not absorbed, but they are covered with a soft substance thrown out in consequence of inflammation, either from the cartilages themselves, or from the ligaments, and then diffused over the cartilages for their union.
246. A small portion of the lower end of a tibia, to show its cartilaginous surface covered with coagulated lymph.
247. The capsular ligament of the ankle-joint united to the cartilage of the astragalus.
248. The lower extremities of the tibia and fibula from a case of fracture extending into the ankle-joint. The cartilaginous surfaces are in a great part removed, apparently preparing them for ankylosis. The parts are well injected, which shows more clearly the extent to which the cartilage has been absorbed.
249. The lower end of the tibia and the astragalus, from a case of dislocated ankle. The cartilages are almost entirely absorbed, and coagulable lymph has been thrown out in some parts, principally from the tibia, occasioning adhesions between the two bones.

b. *By means of Granulations.*

- 250. A finger; to show the cartilage of the first joint absorbed, and granulations arising from the denuded bone.
- 251. Granulations upon the inner surface of a patella. [They extend into a sinus which apparently communicated with the cavity of the joint.]

2. *Suppuration and Ulceration of Joints.*

- 252. The right hip-joint, from a young subject. The cartilaginous surfaces of both the femur and os innominatum are for the most part absorbed. The cavity of the acetabulum is enlarged, and the head of the femur is diminished, from ulceration. The ilium, ischium, and pubis, as well as the periosteum, are separated in consequence of suppuration. Coagulable lymph is thrown out in spots.
- 253. The cavity of the knee-joint very much enlarged, and its internal surface lined with coagulated lymph from inflammation.
- 254. The knee-joint of an aged woman who died in St. George's Hospital in 1759. There was a loose flattened substance in the joint, about the size of a hazel nut. The cartilages are eroded from the lower end of the femur and from the patella in parallel grooves: the synovia was thick, and apparently mixed with purulent matter.
- 255. The knee-joint of a boy who had a white-swelling which came to suppuration. Bristles are placed to point out the extent of the suppuration. Part of the cartilage is absorbed from the condyles of the femur.
- 256. A knee-joint, showing the whole of its interior surface lined by coagulated lymph, in which bristles are placed.
- 257. A patella from which a portion of the cartilage has been absorbed, and a layer of coagulated lymph deposited in its place.
- 258. The upper extremity of a tibia, to show ulceration of its cartilage, and a small rounded portion of the head of the bone exfoliating.
- 259. The upper extremity of a tibia to show ulceration of its cartilage.
- 260. An astragalus with a portion of its superior surface absorbed, and the bone smooth at that part.
- 261. An astragalus having the cartilage of its superior surface ulcerated. The bone is injected to show the vascularity of its denuded surface.

SERIES X. Dislocations.

- 262. A section of the shoulder-joint in its natural state ; to compare with the diseased specimens.
- 263. The other half of the same joint.
- 264. A section of a shoulder-joint that had been dislocated and imperfectly reduced ; to show the bones becoming adapted to their new position.
- 265. Another section of the same joint.
- 266. A shoulder-joint which had been dislocated and not reduced. It shows a rupture of the capsular ligament, marked by bristles ; a new cavity formed for the head of the os humeri on the inner edge of the glenoid cavity of the scapula ; and the cartilage of the head of the os humeri partially absorbed.
- 267. The scapula and capsular ligament from a shoulder-joint that had been dislocated ; showing its appearance fourteen days after reduction.
- 268. The shoulder-joint ; to show its cavity inflamed and ulcerated.
- 269. A dislocated hip-joint which had not been reduced. The head of the femur has been lodged on the dorsum of the ilium, immediately behind the acetabulum. The cartilage of the femur is entirely absorbed.
- 270. A section of a dislocated hip-joint which was not reduced. The head of the femur is lodged on the dorsum of the ilium, to which it has contracted adhesions. An attachment has taken place between the round ligament and the side of the newly formed cavity.
- 271. The other half of the same joint.

SERIES XI. Diseases in consequence of Pressure.

1. *Corns.*

- 272. The end of a finger ; to show its peculiar shape in consequence of a diseased growth of the nail. By maceration the nail and cuticle are separated.
- 273. The cuticle with the nail from No. 272.

274. A corn on the sole of the foot. A portion of cuticle is turned down, and the corn is seen on its edge.
275. A similar preparation: the corn being separated with the cuticle, a depression is seen in the cutis where the corn was situated.
276. A corn on the sole of the foot.
277. A corn upon the joint of a toe, turned down with the reflected cuticle, and a depression of the cutis is seen where the corn was situated.
278. A corn upon the joint of a toe, separated with the cuticle.
279. A corn upon the toe of a fowl.

2. *Adventitious Bursa Mucosa.*

280. A toe with a corn situated over the first joint; and having a kind of sacculus mucosus underneath it.
281. A corn upon the joint of a toe, with a sacculus mucosus underneath it.

SERIES XII. Dropsies of Natural Cavities.

1. *Bursa Mucosa.*

282. The capsula mucosa of the knee enlarged in consequence of an increased secretion of its mucus. Its cavity is laid open.
283. The anterior half of an enlarged capsula mucosa, from the knee of a woman at St. George's Hospital.
284. Small detached bodies, from a ganglion in the human wrist. [They are laminated flattened bodies formed of the inspissated secretion from the lining membrane of the sheaths of tendons.]
285. Similar bodies formed of coagulated lymph, found in ganglions of tendons.

2. *Tunica Vaginalis Testis.*

286. A membrane formed in consequence of the effusion of coagulable lymph on the outside of the tunica vaginalis testis.
287. The testis and tunica vaginalis from a case of hæmatocele which occurred at St. George's Hospital. Coagulable lymph has been effused on the inner surface of the tunica vaginalis, forming a membrane within it.

- 288. A small hydrocele laid open on the anterior part.
- 289. A testis and tunica vaginalis in the state of hydrocele, showing the dilatation of the latter.
- 290. A large hydrocele. Membranous cysts containing fluid are seen at the posterior part, above the testicle.
- 291. The testicle and spermatic chord from a boy, to show a hydrocele of the chord. It appears to be formed in the tunica vaginalis, as in the true hydrocele of the testicle; the two folds of that membrane not having united as is usual where they descend in front of the chord.
- 292. A hydrocele formed by a collection of fluid in a separate cyst behind the testicle.
- 293. A testicle with part of the scrotum after the operation for hydrocele. Adhesion has taken place to the skin at the part where the puncture was made.

3. *Peritonæum.*

- 294. Dropsy of the omentum. This membrane is distended to several times the dimensions of the stomach, to which it remains attached.

SERIES XIII. Diseases of Veins.

1. *Inflammation of Veins.*

- 295. Veins inflamed in consequence of venæsection, from the arm of a man who died at St. George's Hospital. The veins both above and below the orifice are in many places united by the adhesive inflammation. In the intervening spaces pus was secreted from their inflamed surfaces, and in several places ulceration had occurred, and the surface of the vein next to the skin was removed, so that a circumscribed abscess was formed. The vein near the axilla had suppurated, and beyond this, adhesion had not taken place; therefore a free passage for the matter into the circulation was afforded, which most probably was the cause of the patient's death.
- 296. An inflamed vein laid open. Coagulated lymph is seen on its internal surface.

297. A vein inflamed in consequence of being wounded and exposed: it is laid open to show coagulated lymph lining its internal surface.
298. A vein showing the same circumstances, from the same individual as the preceding preparation.
299. A portion of a tumour from the belly of a horse; in which the veins are filled with coagulated lymph, which adheres so firmly to their inner surface, that in many places it cannot be distinguished from their coats.
300. The jugular vein of an ass filled with a coagulum in consequence of inflammation. The impressions of the valves on the coagulum are very distinct.
301. The jugular vein of an ass obliterated by inflammation.

2. *Ossification in Veins.*

302. A coagulum on the inside of a vein, with portions of osseous matter deposited in it.
303. A similar preparation, with the appearances more distinct.

3. *Varicous Veins.*

304. Varicous veins of the leg, laid open in parts, to show the coagulated blood in them.

SERIES XIV. Diseases of the Heart and Arteries.

1. *Of the Heart.*

305. A section of a heart, showing a considerable mass of coagulated lymph lining the ventricle and filling the interstices between the fasciculi and carneæ columnæ.
306. A portion of the heart of a woman, covered by an unusual quantity of fat. The muscular parietes of the ventricle are very thin and pale.
307. Part of the heart of a medical gentleman; the substance appears to be almost entirely absorbed, and there is a scrofulous ulcer on the pericardium.
308. A portion of a heart in which excrescences are seen arising from the mitral

valves, and from the valves of the aorta. Also a few specks of ossification on the mitral and tricuspid valves.

- 309. The mitral valves, and those of the aorta, ossified. [The diminished size of the aperture between the auricle and ventricle deserves particular notice.]
- 310. Part of a heart to show the mitral valves, and the semilunar valves of the aorta, ossified. The aorta also is ossified in one part, and appears to be dilated, at its origin.
- 311. A portion of a heart showing the tricuspid valves ossified.
- 312. A portion of a heart showing similar circumstances.
- 313. The valves of the aorta, and those of the left ventricle of the heart, much ossified.

2. *Of Arteries.*

- 314. The valves of the aorta diseased and corrugated, from a patient who had palpitations of the heart, and died dropsical.
- 315. The valves of the aorta diseased and corrugated, from a gentleman who had palpitations of the heart from his infancy.
- 316. The valves of the aorta in a state of thickening and incipient ossification. [Two of the valves coalesce so completely, as to appear on a cursory view as a single valve. It must remain doubtful whether it be a congenital conformation, or the effect of adhesive inflammation.]
- 317. The valves of the aorta ossified in an extraordinary degree. [Two of the valves have coalesced; apparently from the progress of the ossific inflammation along their contiguous margins.]
- 318. The valves of the aorta ossified.
- 319. The valves of the aorta ossified. [A ridge of ossific matter extends from the corpus sesamoideum of one of the valves to the coats of the artery; giving to it the appearance of two valves conjoined.]
- 320. Ossification of the aorta at its origin. The inner surface of the ventricle is remarkably smooth.
- 321. The semilunar valves, and the arch of the aorta, much ossified.
- 322. The valves of the aorta thickened; with beginning ossification.

- 323. The valves of the aorta slightly ossified ; with dilatation and ossification of the aorta itself. One of the coronary arteries is also ossified to a considerable extent from its origin.
- 324. Part of the arch of the aorta much ossified, and somewhat dilated at the origin of the carotid and subclavian arteries.
- 325. The ascending aorta, the curvature, and descending aorta ossified ; and the inner membrane raised in irregular patches, by a deposition of soft matter between it and the middle coat.
- 326. A portion of the superior part of the aorta descendens much ossified.
- 327. The descending aorta much ossified.
- 328. The descending aorta ossified, in which some of the ossified parts are broken. The coats of the artery are partially separated, to show an ossific deposit mixed with soft matter between the inner and middle coats.
- 329. The aorta above its bifurcation, much ossified. From a military officer.
- 330. The aorta much ossified at its bifurcation.
- 331. The aorta at its bifurcation partially ossified. [There is a deposit of athomatous matter between its internal and middle coat. One of the iliacs is nearly obliterated by a considerable deposition of similar matter.]
- 332. Arteries of the brain ossified.

3. Progress of Ossification in Arteries.

- 333. Part of the aorta in a state of incipient ossification. It was steeped in an acid without any effervescence taking place ; so that this white appearance precedes the deposit of earthy matter.
- 334. A small portion of the iliac artery of a general officer, ossified. The internal coat is separated and turned down, showing that the ossific process begins in it.
- 335. A portion of the iliac artery of the same individual, ossified. Part of the inner coat is separated and turned back, to show that the ossification is confined to that coat.
- 336. Two portions of artery, from the same individual as the two preceding preparations, showing the same circumstance.
- 337. Portion of an ossified artery, in which the coats are separated from each other, to show that the ossification is in the internal coat.

- 338. The arch of the aorta much ossified. The inner coat is partially separated, to show that the bony deposit is chiefly confined to that membrane.
- 339. A portion of an ossified artery, in which the coats are separated from each other, to show that the ossification extends to the other coats as well as the internal.
- 340. A section of an ossified aorta, the internal membrane of which is turned down, to show that the ossification has extended to the other coats.
- 341. A section of an aorta, in which are several ossified spots. On the cut edges may be seen the extent of the ossification from the inner surface into the substance of the artery.
- 342. A similar preparation ; part of the same aorta.
- 343. The crural artery much corrugated and ossified.

4. *Ossification upon Arteries.*

- 344. Ossifications on the external part of the arch of the aorta. From a man who died in consequence of bony deposit in the lungs. [Small ossified spots are also observable on the inner coat.]
- 345. Another portion of the same aorta, showing osseous matter deposited on its external surface.

5. *Obliteration, and Mortification, of Arteries.*

- 346. The umbilical artery of a calf, after its separation from the secundines. The cavity of the artery is filled with coagulated blood, so as to render it impervious.
- 347. The end of the hypogastric artery of a calf, in a similar state.
- 348. A coagulum on the end of the crural artery of a boar, in which that vessel was divided and not tied.
- 349. The carotid artery of an ass, in which that vessel was divided, and the animal allowed to bleed to death. The divided extremities are seen contracted, and a coagulum is formed so as to compress the artery, in consequence of the diffusion of blood into the surrounding cellular membrane.
- 350. A coagulum in the end of an artery after amputation. A bristle is placed behind the newly formed substance which closes the orifice.

351. A portion of the carotid artery of a dog, in which that vessel had been tied with two ligatures, at about an inch distant from each other; and the animal, some time afterwards, killed. [A coagulum is seen in the space between the two ligatures, but attached most firmly to the upper extremity; similar to that which forms when a single ligature has been applied.]
352. A portion of an artery, and vein, laid open to show that each vessel is filled with a coagulum.
353. The femoral artery of a man, divided; in consequence of which he bled to death. [This is the original description; but as no record of the case remains, it seems necessary to add, that the appearances usually observable under such circumstances as those described, are not to be seen in this vessel: it has neither retracted nor contracted.]
354. The crural artery of a man, whose leg was amputated at St. George's Hospital. The artery did not unite by the first ligature, but gave way and bled. A ligature (which still remains in the preparation) was tied round the granulations at the part from whence the bleeding seemed to proceed, but did not inclose the artery. The man sunk from the loss of blood; and after a few subsequent bleedings he died. The end of the artery is seen a considerable way within the granulations, and above the ligature; it is a little contracted, and has become thinner in its coats. About an inch above the end of the artery is a coagulum of blood terminating below in a conical point, where we may suppose the artery is soundest; there endeavouring to make a stop to the blood.
355. A portion of an artery and vein from a patient at St. George's Hospital, who died from secondary hæmorrhage. The vein is much thickened.
356. The crural artery mortified; after amputation. From a lad at St. George's Hospital, in whom the vessels bled at different times till he died.
357. A coagulum in the crural artery; from a woman, who died with a mortification in the lower extremity. The upper part of the vessel is corrugated and sound, but the lower end, which is smooth and soft, was in the mortified part.
358. A section of an artery, showing a deposition of soft matter between the inner and middle coats, in consequence of the irritation produced by the

pressure of surrounding bone, which appears to be an adventitious product.

359. Obliteration of the lower part of the internal iliac arteries of a deer from the East Indies.

6. *Tumours analogous to Aneurism.*

360. A portion of the heart of a gentleman, to show an appearance similar to tumour on the inside of the right ventricle. It is composed of a succession of laminæ of coagulated lymph, that seem to be dissolved in the centre into a kind of glairy mucus, which gives it a cavity.
361. A portion of the apex of a heart, showing a similar formation in both ventricles.
362. Another portion of a heart, showing a similar formation occupying a large proportion of the cavity of the left ventricle.

7. *Aneurism.*

a. *Of the Heart.*

363. The left ventricle of the heart, dilated into an aneurism at its upper part. The aneurismal sac is laid open on the outside, and its communication with the ventricle is very distinctly shown.

b. *Of Arteries.*

364. A human sternum, with the cartilages of the ribs attached; from a subject who had an aneurism of the aorta: to show the effects of what Mr. Hunter denominated the relaxing, elongating, or weakening process. On the right side, the cartilages are bent outwards, or elongated, to adapt them to the form of the aneurism.
365. A small aneurismal dilatation of the coats of the aorta, just beyond the semilunar valves.
366. The ascending aorta dilated and partially ossified.
367. A large aneurism of the ascending aorta. A portion of the heart is left to show its relative situation. [All the coagulum is removed except the lamina immediately lining the aorta.]
368. The aorta dilated, and ruptured, near its origin.

369. A section of an aneurism of the ascending aorta, containing coagulated blood. It pressed against the sternum, making a tumour externally. The sternum remains to show the relative situation of the parts.
370. The other section of the preceding preparation.
371. An aneurism of the ascending aorta. The aneurismal pouch is filled with layers of coagulated blood, in which bristles are placed.
372. An aneurism of the arch of the aorta, in which the orifice of the left subclavian artery is obstructed by the coagulum.
373. An aneurism of the arch of the aorta, which burst into the trachea and killed the patient. The opening into the trachea is exposed.
374. An aneurismal dilatation of the aorta of a turtle.
375. A coagulum of blood from an aneurism in a lion. [It appears singularly loose and spongy in its texture.]
376. A coagulum from an aneurism.
377. Part of a coagulum from an aneurism of the arch of the aorta of a soldier. The case occurred at Chelsea Hospital.
378. Another section of the same coagulum.
379. Another section of the same coagulum.
380. A section of a large coagulum from an aneurism of the aorta of a male subject.
381. An aneurism of the external carotid artery. The tongue, œsophagus, and other parts are preserved to show the relative situation of the aneurism.
382. An aneurismal sac, apparently in the carotid artery, showing the layers of coagulated blood within it.
383. An aneurism of the right internal carotid artery of a lady aged sixty-four.
384. A similar preparation of the left internal carotid of the same individual.
385. An aneurism of the subclavian artery of a gentleman. The artery is slit open to its dilatation ; the aneurismal sac is also laid open, and a bristle is introduced into the part where the artery and the aneurism communicate.
386. The brachial artery below the aneurism, from the same individual. The part next the sac is obliterated by coagulated lymph.
387. A section of a very large coagulum of blood, from the preceding aneurism.

388. A portion of the aorta and a small part of a very extensive aneurism. The latter is preserved among the dry preparations. [The present specimen is preserved in spirits, to show the well defined aperture by which the aorta communicates with the aneurismal sac. This aperture is of an oval form, and situated at the posterior part of the artery, where it passes between the crura of the diaphragm. The vessel itself, viewed anteriorly, has little or no appearance of disease, or of dilatation.]
389. An aneurism of the internal pudical artery.
390. The external iliac artery, with part of a large aneurismal sac. [The vessel is much thickened, corrugated, and ossified; and has two or three successive dilatations before its entrance into the sac, similar to what is observable in No. 399.]
391. The femoral artery, in a diseased state; which had been operated on for poplitæal aneurism.
392. A small portion of an aneurism of the poplitæal artery. A bristle is placed in the upper orifice; the lower was obliterated.
393. An artery leading into an aneurismal sac; a bristle is placed in the orifice.
394. An aneurismal sac laid open, and its cavity exposed. [Apparently poplitæal.]
395. Section of an aneurism, for which the operation was performed at St. George's Hospital with success. The cavity is seen filled by a laminated coagulum.
396. The other half of the same coagulum, removed from the sac.
397. An aneurism of the poplitæal artery of a man who was a patient in St. George's Hospital. The surrounding parts are left, to show their relative situation. The femur and tibia are sawn through obliquely, a portion of the aneurismal sac is removed, and the artery both above and below is laid open. The crural artery above enters the sac almost in a direct line, while the artery below goes out obliquely; not at the opposite end of the sac, but at a little distance from the entrance of the artery above. The crural artery, before it enters the sac, is for some way very much contracted, especially at its orifice. The aneurismal sac extends along the inferior portion of the artery on that side next to the bone. It was filled with coagulated blood, which has been removed. It is probable that

- blood did not pass out of the aneurism during life, as the injection did not escape when the parts were injected with fine glue after death.
398. Is a section which was removed from No. 397. Part of the poplitæal vein is left upon it, showing how greatly it is compressed ; probably not admitting blood in the living body. It is indicated by a bristle inserted into it.
399. An aneurism of the poplitæal artery of the opposite limb of the same man from whom the two preceding preparations were taken. The artery is dilated more on one side than the other, but the sac had not yet begun to descend. The crural artery above the principal sac has three successive smaller dilatations. This aneurism was felt during life, but not seen.
400. A portion of the femoral artery of a man who died in St. George's Hospital with an aneurism. The artery was tied above the aneurism. [A coagulum had formed in the artery above the ligature ; and another in the accompanying vein : possibly mortification of the limb followed the operation.]
401. The poplitæal artery become diseased ; from the other leg of the same individual : apparently showing incipient ossification.
402. A poplitæal aneurism. The coagulum of blood is separated from the cavity of the aneurism, but is left adhering at the lower part of the preparation. A bristle is placed in the orifice of communication with the artery.
403. A large aneurism of the poplitæal artery. The vessel is exposed both above and below the aneurism.
404. A section of a coagulum from an aneurism of the poplitæal artery.
405. A similar preparation.

SERIES XV. Tumours.

1. *Elephantiasis.*

406. A transverse section of a leg affected with elephantiasis.
407. A transverse section of the same limb, at the ankle.
408. The foot of the same individual.

2. *Indolent Parts thickened without Inflammation.*

- 409. Part of an omentum which had become thickened without inflammation.
- 410. Section of a liver that had thickened without inflammation, somewhat similar to indolent tumour.
- 411. Nymphæ enlarged and thickened.
- 412. Nymphæ still more enlarged and thickened.
- 413. The nymphæ very much enlarged and thickened; especially the right.
Removed from a woman at St. George's Hospital, by Mr. Gunning.
- 414. Tumours of considerable size from the labia pudenda.

3. *Tumours of the circumscribed kind.*

- 415. A tumour or excrescence removed from the inside of the mouth of a woman.
- 416. A small circumscribed tumour from the inside of the mouth.
- 417. A tumour, of a dense gristly nature, removed from the inside of the mouth of a young woman.
- 418. A tumour of the same kind; and apparently from a similar situation.
- 419. A tumour from under the lower jaw.
- 420. A tumour removed from under the jaw of a young woman. [Probably a strumous glandular affection.]
- 421. A spherical circumscribed encysted tumour under a man's tongue. It was situated between the two genio-hyoidei muscles. [It is apparently of a scrofulous nature.]
- 422. A tumour enveloping the left carotid and subclavian arteries, at a small distance above their origin.
- 423. A tumour extracted from the lower part of the parotid gland of a man at St. George's Hospital, in the centre of which is a curdly matter. Probably a lymphatic gland.
- 424. A tumour (removed by operation) from the neck of a gentleman.
- 425. A lobulated tumour from the neck of a child, who died in consequence of it: [i. e. Either in consequence of its pressure, or of its removal: the first is the most probable, from the free manner in which the skin has been removed along with it.]

426. A tumour which was removed by Mr. Hunter from the side of the neck of John Burley, at St. George's Hospital, Oct. 24, 1785. It weighed 144 ounces. [The patient speedily recovered.]
427. A pendulous lobulated tumour on the neck of a goose.
428. A tumour removed from below the ear of a child. [Apparently a *nævus maternus*.]
429. A small tumour covered with hair. [Apparently a *nævus maternus*.]
430. A tumour removed from a woman's back.
431. A tumour removed from the back. [It has a malignant character.]
432. A small lobulated tumour covered by the skin; from the axilla.
433. A circumscribed and scirrhus tumour from the cellular membrane.
434. A very small spongy circumscribed tumour, formed in the cellular membrane.
435. A tumour from the belly of an ostrich, composed of a congeries of small globular bodies.
436. A tumour composed of a great number of lobules or tubercles united by cellular membrane.
437. A section of a tumour from the neck of a horse, on which an operation was performed for its removal. The tumour was eight or ten inches long, four or five in thickness, and was attached only by cellular membrane. It was of a very dark colour, and when divided it yielded a fluid resembling ink, which blackened the water it was steeped in for a considerable time.
438. A firm lobulated mass which came out of the abdomen of a soldier through a wound made with a bayonet.
439. A circumscribed, very dense, spherical tumour, formed in the substance of the kidney of a sheep. It has a glossy white external surface, and is composed of many concentric laminæ, differing in colour.
440. A section of a scirrhus circumscribed tumour, formed from the inner coat of the uterus, projecting into, and filling its cavity; and may be considered an incipient polypus.
441. A very firm circumscribed tumour in the substance of the uterus; similar in structure to that in the preceding preparation, but situated nearer to the cervix.

442. A section of a tumour formed in the substance of a nerve.
443. The opposite section of the same tumour, on the surface of which may be observed the principal part of the musculo-cutaneous nerve in a flattened or expanded state.

4. *Tumours in circumscribed Cavities, attached by Pedicles.*

444. A small tumour attached by a very slender neck to the peritonæum near the broad ligament of the liver. When recent, before it was steeped in water, it had all the appearance of a coagulum of red blood, as if the blood had coagulated as it oozed out of the mouth of the vessel. This would in all probability have become vascular, perhaps scirrhus or bony, and might have been detached by some violence, and then would have become a loose tumour, like those in the following sub-series. [If held between the eye and the light, vessels may now be very distinctly seen diverging from the trunk in the pedicle, and ramifying through the substance of the tumour.]
445. A small tumour from the abdomen, which was attached by a small pedicle.
446. Spherical tumours on the mesentery of a sheep, to which they are attached by long slender pedicles.
447. A tumour which appears to have been coagulated blood, hanging from the Fallopian tube of a calf.
448. A section of a small pendulous tumour from the abdomen of an ox.
449. A small pendulous tumour attached by a pedicle to a portion of the omentum of an ox.
450. A fatty tumour which was attached by a small pedicle to the outside of the intestine of a bullock.
451. The capsule which contained the preceding tumour.

5. *Tumours found loose in circumscribed Cavities.*

452. A tumour found loose in the cavity of the abdomen of an ox. It had apparently been originally formed on a pedicle which has now lost its attachment.
453. A tumour found loose in the cavity of the abdomen of a lion.

454. A tumour found loose in the cavity of the abdomen of a gentleman.
 The tumour is of an uniform texture, inclosed in a thin smooth capsule.
455. A tumour found loose in the abdomen.
456. Cartilage extracted from a ganglion.
457. A loose body extracted from the knee joint of a patient in St. George's Hospital.
458. Loose cartilages from an artificial joint in the arm.

6. *Tumours becoming Bony.*

459. A small tumour with bone in its centre.
460. A larger tumour with bone in various parts of it.

7. *Tumours of Bone.*

461. A section of a bony tumour of considerable magnitude, formed on the lower part of the femur of a man who was a patient in St. George's Hospital in November 1786.

[It had been about five months in its progress, and nearly encircled the bone. The limb was removed in consequence of its obstructing the motion of the joint. The tumour appeared to originate from the bone itself, and, as the tumour increased, ossific matter was deposited in it; the tumour forming a nidus for the deposit of bone. The medullary canal was also entirely filled with the same kind of deposit.

A month after the operation the patient was attacked with difficulty of breathing, which gradually increased; and he died seven weeks after the removal of the limb, in consequence of bony deposit in the thorax.]

462. Part of the preceding bony tumour, which has been steeped in an acid, to show the animal part.
463. A longitudinal section of the lower end of an os humeri, on the anterior surface of which is a circumscribed tumour of considerable size, very dense in its structure, and closely attached to it: the bone, however, appears to be perfectly sound and unconnected with the disease.
464. A section of the knee joint of a dog. [A large tumour partly composed of bone occupies the poplitæal space.]

8. *Tumours in Bone.*

465. A section of a tumour taken out of the substance of the lower jaw of a young woman.
466. Another portion of the same tumour.
467. A small circumscribed tumour from the inside of the mouth.
468. An excrescent tumour removed from the gum and jaw of a gentleman.
The disease did not recur.
469. A tumour formed at the root of a diseased tooth.
470. A section of the finger of a child, showing a tumour formed apparently by a degeneration of the bone. [The second phalanx seems to have been absorbed, and newly-formed matter resembling cartilage deposited in its place. The first phalanx is also much enlarged by the same kind of interstitial deposit. The other portion of the tumour has the integuments dissected away to show its external surface.]
471. A tumour enveloping the extensor tendon over the first joint of a thumb.

9. *Superficial Tumours and Excrescences.*

472. A lobulated tumour in the skin. [It appears to have been removed from the end of the human nose.]
473. An excrescence from a man's arm.
474. A small spherical tumour attached to the skin by a pedicle.
475. A small excrescence from the human breast.
476. An excrescence removed from the labia pudenda of a woman.
477. Another excrescence of the same kind.
478. A wart [showing a very distinct structure, radiating from a small pedicle, on the skin.]
479. Another section of the same warty excrescence.
480. A section of a singular tumour (of a warty nature) which formed on the leg of a dog.
481. A tumour from the scrotum of a child, composed of a considerable number of distinct rounded lobules of various sizes. [Probably a *nævus maternus*.]

10. *Polypi.*a. *Of the Nose, Antrum, &c.*

482. A section of a nose from which a polypus had been extracted. [Two small polypi are still remaining, and are highly injected. A cartilaginous tumour is also observable projecting into the nostril, which appears to have originated in the cells of the ethmoid bone.]
483. A polypus in the antrum maxillare.
484. A polypus of the nose.
485. A similar preparation.
486. A polypus extracted from the nose.
487. A polypus extracted from a man's nose.

b. *Of the Uterus, Bladder, &c.*

488. A polypus in the uterus.
489. A polypus originating from the cervix uteri; and, extending towards the fundus, fills the cavity of the uterus.
490. A polypus originating from the upper part of the cervix uteri, and by a long pedicle extending into the vagina, which is in consequence much dilated.
491. A polypus originating from the cervix uteri near the os tinæ, and extending into the vagina, which is much distended. [A ligature had been attempted to be applied round the base of the tumour, but it includes only a part, and had not effected a separation.]
492. The bladder of a boy, fourteen years of age, who was operated on for the stone. A conical tumour or process is observable at the fundus, marked by a bristle, which may be considered as an incipient polypus.
493. The urinary bladder of a young girl. [It has been opened laterally, to show that it is distended with a congeries of lobulated adipous tumours which are attached to, or proceeding from, its inner surface. Some of these fatty substances protrude externally through the urethra, which is thereby dilated to twice the diameter of the vagina.—There is no history whatever belonging to this very remarkable specimen.]
494. A polypus of considerable size, on a long pedicle, in the urethra of an ox. [It originated near the verumontanum, and apparently extended into the neck of the bladder.]

11. *Accumulations of Fat.*

495. A tumour formed by an accumulation of fat, which was situated above the breast of a young woman.
496. A section of a fatty tumour which hung pendulous from the groin.
497. A section of a fatty tumour removed from the back.

SERIES XVI. *Encysted Tumours.*1. *Cysts with Semi-Fluid Contents.*

498. A small encysted tumour partially covered by the external skin.
499. An encysted tumour in the cellular membrane, very near the skin ; “ which
“ had opened by the second of our first mode of ulceration.” [viz. pressure
from within : in contradistinction to pressure from without.]
500. Oil from an adipous encysted tumour.
501. A congeries of encysted tumours which had formed between the scapula
and ribs of a female patient at St. George’s Hospital.
502. A similar specimen, from the same individual.
503. A large cyst from the thigh of a woman at St. George’s Hospital.

2. *Cysts with Solid Contents.*

504. A tumour from the human scalp.
505. An encysted tumour from the human eyelid.
506. An encysted tumour removed from the upper eyelid : it was filled with
caseous matter. The cyst is laid open and the contents removed.
507. A tumour of the same kind, not laid open.
508. An encysted tumour removed from the cheek of an aged woman at St.
George’s Hospital. It contains a lobulated substance.
509. An encysted tumour which was taken from under the chin of a young
woman at St. George’s Hospital. It is laid open and its contents are
removed.
510. An encysted tumour containing caseous matter ; in the centre of which are
chalky concretions.
511. The contents of an encysted tumour from a boy’s throat. [It consists of
flaky coagulated matter, and a considerable number of small spherical
opaque bodies resembling the ova of an insect.]

512. A small tumour which was situated immediately under the skin, and was extracted at St. George's Hospital. A portion of the integuments remains on one side, and the tumour is opened on the other to show its contents, which consist of thin flaky substances having the appearance of a succession of cuticles.
513. An encysted tumour removed from the breast of a gentleman. It was filled with a flaky substance, which appeared to be a succession of cuticles, similar to that immediately lining the cyst.

3. *Cysts containing Hair.*

514. An encysted tumour taken from the eye-brow of a man at St. George's Hospital, with hair growing from the inner surface. Its cavity was filled with caseous matter.
515. An encysted tumour from a sheep, containing wool enveloped in fatty matter.
516. A similar tumour communicating with a long canal which passed down the thigh of the same animal. The tumour is filled with wool enveloped in fatty matter, which also extends in impacted masses throughout the whole of the canal.
517. A tumour containing hair, formed in the shoulder of a cow which had six legs. The tumour has a very dense external covering, in texture much resembling the internal surface of the skin of that animal; and its cavity is tensely filled with light brown hair felted together, intermixed with a substance of an earthy and fatty nature.
518. A similar tumour from the shoulder of the same animal, in which are contained several balls of hair. The cyst has a distinct cuticular lining.
519. A small spherical cyst in the human ovary, containing fat, in which there is some hair. [The hairs are very few, but are obvious on a close inspection.]
520. The cyst of a tumour of the ovary, which was filled with a fatty substance. The contents have been removed and the cyst inverted, to show its tuberculated wart-like surface.
521. A very large encysted tumour in the human ovary, filled with fat, in which hairs are interspersed.

522. An encysted tumour in the ovarium of a young woman eighteen years of age, whose hymen was perfect. It contains a considerable quantity of hair, mixed with fatty matter; and on one side a firm substance, from which projects an imperfectly formed tooth. There is also a small cyst attached by a pedicle to the Fallopian tube, which is not an uncommon occurrence in uteri otherwise healthy.

4. *Cysts resembling Hydatids.*

523. A cyst of considerable size in the cerebrum of a lady. The cavity is lined by a thin smooth membrane, which is partially reflected to show it more distinctly.
524. Small cysts, usually denominated hydatids, in the human plexus choroides. [These little vesicles may, sometimes, be inflated with air from the veins.]
525. A similar preparation, in which is seen small cysts which contained a white opaque fluid. This fluid did not effervesce with acid.
526. The plexus choroides of Dr. Solander, in which two or three of the little cysts were filled with a whitish cream-like matter.
527. A longitudinal section of the humerus of an ox, whose medullary cavity is filled with a glossy semi-transparent cyst resembling a hydatid, which contained fluid, but is now distended with cotton. The cancellated structure, together with part of the parietes of the bone, have been absorbed, in consequence of the increase of the cyst.
528. A small transparent cyst on the surface of the spleen. [Probably of an ox.]
529. A transparent cyst, or spurious hydatid, on the surface of a kidney. Part of the substance of the gland has been absorbed, and a quantity of fat that has been deposited in its place, surrounds the pelvis.
530. A large transparent cyst, or spurious hydatid, on the surface of a kidney.
531. A very large cyst, or spurious hydatid, on the surface of a kidney.
532. A kidney, on the surface of which is a cyst, or spurious hydatid, several times larger than the kidney itself.
533. Section of a large kidney. Cysts and spurious hydatids are dispersed through its whole substance; and innumerable small ones are evident on its external surface.

534. The corresponding section of the same kidney. [The transparent bodies observable in some of the cells are not hydatids, but balls of glass introduced to prevent the kidney from floating.]
535. Sections of a kidney whose central part is entirely occupied by cysts or hydatids. [The substance of the kidney is very uniformly reduced to about two lines in thickness; but its external surface retains so completely its natural appearance, as to afford no indication whatever of the disease existing within it.]
536. Hydatids, or rather cysts, formed on, and pressing upon the testicle.
537. A diseased testicle, with cysts or hydatids arising from it, and attached by slender pedicles.
538. Section of a testicle much enlarged, and its whole substance pervaded by small cysts or hydatids.
539. Another section of the same testicle.
540. A cyst or hydatid attached to the posterior external surface of the cervix uteri.
541. A small encysted tumour from the human ovarium. Its external coat is injected.
542. A small cyst, united by a slender pedicle to the Fallopian tube.
543. A very small cyst attached by a pedicle to the Fallopian tube near its fimbriated extremity. There is also a small spherical body on the surface of the ovarium.
544. Two hydatids, or cysts, containing fluid, in the membrane between the ovarium and the Fallopian tube.
545. An ovarium converted into a congeries of cysts; the largest of which is about the size of a hen's egg.
546. An encysted tumour of the human Fallopian tube. [The cyst has a very distinct lining, which bears a strong resemblance to a true hydatid. The cyst is rather on, than of the tube, appearing as if formed around and compressing it.]
547. A human ovarium increased to an extraordinary size by a congeries of cysts. Some of these are laid open, to expose their contents.
548. A congeries of cysts containing hydatids, enveloping the uterus of a maucauco.

549. A small spherical cyst or hydatid attached to the inner surface of the fimbriated extremity of the Fallopian tube of a sow.

550. A similar specimen, from the same animal.

5. *Hydatids.*

551. A transverse section of the base of the brain of a giddy sheep, to show a cavity in which the hydatid which occasioned that affection, is contained.

552. A vertical section of the brain of a giddy sheep, showing a cavity between the cerebrum and cerebellum, in which a hydatid was contained.

553. The brain from a giddy sheep, showing a large cyst in the right hemisphere of the cerebrum. [At one part, the substance of the brain is entirely absorbed, and the cavity inclosed only by the pia mater.]

554. Part of the skull of a giddy sheep, in which a portion of the bone has been absorbed, in consequence of the pressure of a hydatid in the brain, which was approaching towards the surface.

555. An encysted tumour in the substance of the ventricle of the heart of a bullock. [It contains several gelatinous hydatid-like membranes; some of which are collapsed, brown, and shrivelled, and apparently of earlier formation than the others.]

556. A portion of measly pork, showing a number of cysts containing minute animals which Mr. Hunter called Hydatids. [Hydatis Finna of Blumenbach;—Cysticercus cellulosæ of Rudolphi.]

557. A portion of the lung of a lion containing a hydatid: part of the cyst is turned down, and the hydatid is laid open.

558. Several small irregular substances from the lungs. [They were named hydatids; but appear rather to be masses of firmly coagulated lymph.]

559. A hydatid from the liver, coughed up through the lungs.

560. An oval hydatid, [Tænia Hydatigena; probably from a sheep.]

561. An oval hydatid.

562. An oval hydatid found in the omentum of a giddy sheep.

563. An oval hydatid from a hog, together with the cyst in which it was contained.

564. Cysts formed in and upon the spleen of a man aged forty-six. These cysts were connected with the stomach and pancreas, and contained hydatids of

- various sizes, hydatid-like membranes, and a considerable quantity of fluid with numerous minute granular bodies.
565. A section of a hydatid of a deep amber colour, inverted, to show its inner surface studded over with what are considered to be small hydatids. [It is from the preceding preparation, where one of the cysts still contains a large hydatid of the same colour.]
566. Hydatids of a white colour, from the same subject as the two preceding preparations. One of the largest is inverted and suspended ; and part of its inner surface is covered with hydatids, which look like minute pearls or studs set in the inner coat.
567. A very large cyst which was formed in the abdomen near the stomach, of a man ; containing hydatids of various sizes.
568. A portion of the colon from the same individual, with a large cyst adhering to it, which contains numerous hydatids.
569. The rectum and bladder, from the same individual, having a large cyst between them, that contained hydatids. The bladder is thickened, and ulcerated through, at the fundus. To prevent effusion into the cavity of the abdomen, a thick conical mass of coagulated lymph has been deposited on the fundus, covering it like a cap.
570. A portion of an omentum which is thickened by a congeries of hydatids.
571. A hydatid within the duplication of the omentum.
572. A cyst which was lined by a very large hydatid that contained some hundreds of small ones ; from the liver of a woman who died at St. George's Hospital. [The large hydatid is removed, to show the inner surface of the cyst ; and lies, with many of the small ones, at the bottom of the bottle.]
573. Hydatids from the liver of a woman. [Immense numbers of them distended the cavity of the abdomen. They were of various dimensions ; from the size of a pea, to that of a very large orange.]
574. Some hydatids from the human liver.
575. A hydatid from the liver.
576. A portion of a large hydatid from the liver, on the inner surface of which is a white semi-transparent cauliflower-like excrescence. [Supposed to be a cluster of young hydatids, but that is doubtful.]

577. A cyst about the size of an orange. Within it, and connected to it by loose cellular texture, is another cyst, which contains several loose hydatids: the whole having the appearance of a nest of hydatids one within another.
578. A portion of liver, with a cyst containing a hydatid; both of which are laid open.
579. A hydatid taken out of its cyst entire.
580. A cyst containing a hydatid, laid open.
581. A cyst laid open which contains several small hydatids.
582. A portion of the liver of some small animal, in which is a cyst containing a hydatid.
583. Apparently another portion of the same viscus; with the cyst unopened.
584. A cluster of hydatids in the liver. Some of the cysts are opened.
585. A portion of the liver of a small animal containing hydatids.
586. Large cysts formed on the liver of a monkey; some containing a single hydatid; others, a congeries of them.
587. A portion of the liver of a cat, in which is a cyst containing a hydatid.
588. Another portion of the same liver containing a hydatid of larger size.
589. A large cyst from the liver of a lion, containing a considerable number of hydatids.
590. A kidney [apparently of a child] full of cysts which contain coagula; a small calculus is imbedded in one part of its substance.
591. Spurious hydatids, or cysts, formed in the substance of a kidney.
592. A cyst or hydatid from the kidney of a sheep, which contained several small spherical ones, that were remarkably transparent. These lie at the bottom of the bottle.
593. Hydatids which were with great difficulty voided by the urethra of a gentleman, along with the urine. [The patient recovered.]
594. A hydatid of an oval form in an encysted tumour.
595. A cyst, containing a hydatid, removed by operation from the arm of a gentleman.
596. A hydatid from the rectus abdominis muscle.
597. A hydatid which was situated on the rectus abdominis muscle.
598. A hydatid taken from the thigh.

6. *Cysts containing Air.*

599. A bird emphysematous. [Apparently a starling, and probably a consequence of gun-shot; but this preparation has no history.]
600. A portion of the rectum of a hog; the peritonæal coat of which is covered in several places with small pellucid cysts containing air. It was sent to Mr. Hunter by his friend Mr. Jenner, surgeon, at Berkeley (afterwards Dr. Edward Jenner); who stated that this appearance is found very frequently upon the intestines of hogs that are killed in the summer months.

7. *Cysts becoming Bony.*

601. Part of the heart of a bullock, to show a bony cyst attached to the inner surface of the apex of the left ventricle.
602. A portion of epiploon, in which are two incysted tumours whose coats had become ossified.

DIVISION II.

ILLUSTRATIVE OF PECULIAR, OR SPECIFIC, DISEASES.

SERIES XVII. Scrofula.

1. *In Bone.*

603. A SECTION of the left os humeri of a woman affected by mollities ossium.
604. A section of the frontal and right parietal bones, from the inner surface of which, in the situation of the coronal suture, arises a bony production of considerable extent; very dense in structure and tuberculated on its surface. It appears to have been formed in the dura mater, but is firmly

- attached to the skull. On several other parts within the skull there are small exostoses of the same description. The dura mater has coagulated lymph deposited on its inner surface. The external surface of the skull opposite to the tumour does not exhibit any appearance of disease.
605. A section of a tumour in the skull, chiefly projecting internally; to which the dura mater firmly adheres.
606. The adjoining section of the same skull and tumour.
607. A section of the right temporal and parietal bones of a young woman, twenty-five years of age. A tumour projects externally about half an inch above the surface of the parietal bone; and there is a similar tumour, situated exactly opposite, on the inside of the skull; which, projecting to about the same extent inwards, pressed on the middle lobe of the cerebrum. These tumours are of a loose fibrous bony texture, they are simply in contact with the cranium, having no firm adhesion to it, and the intervening portion of the cranium is sound, only unusually vascular. [This preparation exhibits a vertical section of the parts preserved in spirits in their recent state, and shows that the bony fibres are disposed perpendicularly to the surface of the skull.]
608. The adjoining section of the same cranium and tumour, macerated and dried. The external portion of the tumour has been separated, to show that it had no very firm attachment to the skull, and its fibrous texture is more distinctly visible than in the preceding preparation.
609. A section of the os frontis of a man who died in St. George's Hospital; to show a scrofulous thickening of the pericranium. He had several hard tumours on the skull, which the physicians and surgeons mistook for venereal affections; but from the history of the case itself, there was no reason for coming to that conclusion. The man died consumptive: and upon examining those swellings, they appeared to be a scrofulous increase of the periosteum only.
610. A portion of the skull of a Frenchman, who died scrofulous; to show that a considerable part of the bone has been removed, and its place occupied by a scrofulous tumour, which projects both externally and internally.
611. A small circular protuberance from the inner table of the parietal bone; apparently a scrofulous deposition.

- 612. Two portions of cranium which have been removed by the trephine. Ulceration had taken place both on the external and internal surfaces.
- 613. A portion of rib, with its cartilage, which is much thickened; from the same individual from whom the preparation No. 610 was taken.
- 614. Another portion of the same rib, showing similar circumstances.
- 615. A transverse section of a sternum affected by scrofula.
- 616. Another portion of the same sternum.
- 617. A vertebra, in which scrofulous ulceration had begun.
- 618. A portion of the os ilium affected with scrofula.
- 619. A longitudinal section of a scrofulous knee.
- 620. The lower half of a tibia and fibula. The tibia is affected with scrofula, and the greater part of its bony structure is absorbed.

2. In Glandular Parts.

- 621. Minute scrofulous tumours on the stomach and intestines of a sparrow.
- 622. Scrofulous glands from a large white monkey.
- 623. The thyroid gland in situ, much enlarged. [Bronchocele.]
- 624. A portion of lung, the whole substance of which was studded with small tubercles.
- 625. Part of a liver, the whole of which was occupied by a congeries of encysted tumours filled with solid matter.
- 626. An adjoining portion of the same liver.
- 627. A portion of the liver, omentum, mesenteric glands, and a section of a testicle; to show scrofulous affections of those parts, from the same subject.
- 628. A section of a kidney, to show the mammæ deprived of their natural structure by disease. [It is apparently caused by scrofulous ulceration in the infundibula and pelvis.]
- 629. The kidneys of a scrofulous child. One retains its usual form and size, but a spherical tumour is seen projecting from its side. The other is increased to very unusual dimensions, and so altered in form as to be with difficulty recognized as a kidney. A section has been made to show the structure of the mass, which in appearance is very analogous to scirrhus.

630. A section of the testicle of a man, very much enlarged by a deposition of apparently scrofulous matter, in which are small cysts. The disease first began by a large hydrocele. The affection of the testicle was suspected to be scrofulous ; and that opinion was strengthened by finding scrofulous tumours on examining the body after death.
631. A section of a testicle ; in the inferior part of the body of which is deposited an opaque and apparently scrofulous inorganic substance. The dimensions of the testicle have increased in proportion to the extent of this deposit, the natural structure of the testicle seeming not to have been diminished by its pressure.
632. A section of a testicle extirpated at St. George's Hospital by Mr. Gunning. There was a little fluid in the tunica vaginalis. The regularity of the whole of the testicle, and the appearance of the tunica albuginea, were such, that, excepting in size, it had exactly the resemblance of a natural and sound testicle. However, when a section was made, it was found to be diseased ; the natural structure being in a great measure obliterated, probably absorbed ; and appearing to be exchanged for an almost entirely new substance. The arteries were enlarged, and the veins become a little varicous.

3. *In Common Parts.*

633. A portion of tuberculated omentum.
634. Part of a scrofulous tumour formed in the thigh. It was supposed to be an aneurism before death.
635. A scrofulous tumour, or cyst, on the breast of a young bird.
636. Scrofulous tubercles or cysts on the upper part of the wings of a lark.
637. Scrofulous tubercles on the legs of sparrows. [Tubercles of this kind are not of unusual occurrence on the feet, as well as in other parts of the body, of birds that have been brought to this country from tropical climates, and kept in a state of close confinement. Quadrupeds so circumstanced, also very frequently die from scrofulous affections.]

SERIES XVIII. Cancer.

1. *In Glandular Parts.*

638. A section of a scirrhus breast, with a lymphatic gland contaminated before suppuration had taken place in the breast. From a case in which Plunkett's powder had been once applied.
639. A scirrhus tumour of the breast.
640. A tumour in the breast.
641. A portion of a breast in which a scirrhus tumour had been formed just behind the nipple, and was very moveable. The first symptoms of the disease were an occasional bleeding from the nipple, and after that, a small tumour was felt. The breast and tumour are divided in the axis of the nipple, and bristles are placed in the tubuli lactiferi leading from the nipple to the tumour.
642. A portion of a cancerous breast. In the great tumour felt externally there were found interspersed a great many cancerous hydatids.
643. Part of the pectoral muscle of a woman, which was becoming cancerous.
644. A section of a breast which was extirpated on account of cancer. The glandular parts of the breast seem to have disappeared, and the tubuli lactiferi are as distinct as though they had been dissected. They contained a whitish fluid. A circumscribed tumour very firm in texture is continued from, and connected with, the nipple.
645. A cancerous breast in which suppuration appears to have taken place. Behind the nipple, are two considerable circumscribed cavities, divided by a septum; and an excrescence, in which is placed bristles, is seen protruding into both cavities.
646. A section of a cancerous breast, in which the cancerous suppuration had taken place.
647. A cancerous breast which sloughed off, after the application of arsenic.
648. The thyroid gland and trachea affected with cancer. The trachea is ulcerated.

2. *In Common Parts.*

- 649. A cancerous tumour removed from the perinæum of a woman.
- 650. A cancerous tumour from the groin. [It is a very characteristic specimen of the disease, and appears to be an affection of the inguinal glands.]
- 651. A cancerous tumour extracted out of the back. [It is of an oval form, perfectly circumscribed, and has a smooth external surface. The suppurative process appears to have taken place in its centre.]

3. *In the Alimentary Canal.*

- 652. A cancerous lip, removed by operation from a man at St. George's Hospital.
- 653. The tongue and throat affected by cancer.
- 654. The throat affected by cancer. The tonsils are greatly enlarged, and ulcerated.
- 655. A portion of a stomach with a cancerous ulcer at the cardia.
- 656. The stomach of a woman with a cancerous tumour of considerable size, which on its inner surface had proceeded to ulceration. Adhesions have taken place between the stomach and the liver. The jejunum of this woman was much inflamed and thickened for about eighteen inches in extent. The symptoms had continued for twenty-five years. The state of the jejunum may be seen in the preparation No. 71.
- 657. A portion of a stomach, to show a cancerous ulcer of its internal surface which had extended nearly through its coats. The ulcer has a thickened and corrugated margin which projects into the cavity.
- 658. A portion of a stomach, having a cancerous ulcer at the pylorus.
- 659. A portion of a stomach with a cancerous ulcer at the pylorus; the parietes of which are very much thickened.
- 660. A cancerous excrescence on the internal surface of a portion of small intestine; and a smaller excrescence of the same kind laid open to show its pulpy texture.
- 661. A longitudinal section of the stomach of a cod-fish, which has a very large and dense scirrhus tumour attached to its outer surface; with a considerable cavity in its centre, produced by ulceration.
- 662. A cancerous ulcer in the rectum.

663. A section of a scirrhus tumour from the rectum of an ox. It is of considerable dimensions, and its structure is remarkably distinct.

664. The other section of the same tumour.

665. A cancerous ulcer in the rectum.

4. *In the Organs of Generation.*

666. A human uterus, to show that the whole of the vagina, where it was connected with the uterus, has been destroyed by cancerous ulceration.

667. An uterus in which the cervix is principally involved in a cancerous fungated ulcer. [The ulcer apparently communicated with the cavity of the abdomen.]

668. A similar preparation.

669. A preparation in some measure similar, but the disease is chiefly confined to the fundus uteri, which is, in consequence, distended to a size equal to that of the fourth month of pregnancy. Presented to Mr. Hunter by Mr. Lynn.

670. Supposed cancer of the urinary bladder of a woman who died in St. George's Hospital. The ulceration has committed very extensive ravages. A quill marks the situation of the cervix uteri, the os tincae having been destroyed. The body of the uterus is but little affected by the disease.

671. A vagina in which cancerous ulceration has produced a communication between it and the urinary bladder. [Great inflammation appears to have attended the progress of the disease.]

672. The bladder of a gentleman laid open anteriorly, showing two cancerous, excrescent, or fungated spongy bodies, arising from its inner coat, and projecting into its cavity. When recent, these bodies had a good deal the appearance of piles, and were each of the size of a small walnut. The muscular coats of the bladder were thickened but not diseased. Some parts of the inner coat were hardened, and appeared as they would have done had lunar caustic been applied to their surface. The disease had apparently existed about sixteen years, and the symptoms gradually increased in violence till death.

673. A section of a glans penis which is converted into a fungous excrescence.

674. The other section of the same penis.

5. *Of the Eye.*

675. A vertical section of the left eye of a female child about three years of age; in the centre of which, and between its coats, is a morbid deposit.
676. The other section of the same eye, having the before-mentioned substance removed from the anterior part of the cavity, the better to expose a spherical tumour which occupies the posterior part. It also shows more clearly how far the choroid coat has been separated from the sclerotic by the deposition of the new-formed substance.
677. The right eye of the same child, with the optic nerve and commissure, a portion of the brain, and a tumour which formed in, and filled the orbit after the operation for the removal of the left eye. The child survived the operation about ten months.
678. A cancerous eye.
679. A cancerous eye, where the whole of its cavity is filled with a brownish spongy mass. Removed by operation from a female patient in St. George's Hospital, Nov. 5th, 1781. A violent hæmorrhage soon succeeded; she became delirious, and died ten days after the operation. The state of the brain and optic nerve of this patient may be seen in the next preparation.
680. Part of the brain, and optic nerves belonging to the subject from whom the preceding cancerous eye was taken; to show that the optic nerve of that side is very much diminished in size. [See also No. 1045.]
681. A fungous tumour pressing upon the eye.

SERIES XIX. Diseases resembling Scrofula and Cancer.

682. A spherical tumour which formed in the gland of the breast, distinct in its structure from the surrounding parts.
683. A tumour in the breast, neither cancerous nor scrofulous; but completely distinct, and of a separate structure from the surrounding parts.
684. A portion of the lung of a lady who had a cancer of the right breast. It is filled with large white tubercles of various sizes.
685. A portion of rib from the left side of a gentleman aged forty-six, in whom

- the liver, kidney, lymphatic glands, and various other parts of the body were affected with disease "resembling cancerous tumours coming to "suppuration, or rather an appearance which in some respects resembled scrofula, in others, cancer." [Probably from the same individual as No. 627.]
686. A kidney of a gentleman with a tumour in its pelvis, which occasioned bloody urine for six years.
687. The appearances of a disease supposed to differ from scrofula and cancer, shown in the spermatic chord, in the omentum, and in glands from the loins.
688. A longitudinal section of a penis, exposing the urethra through nearly its whole extent, to show the effects of a disease supposed to differ from scrofula and cancer. There are two fistulous openings leading from the urethra.

SERIES XX. Fungated Ulcers.

689. A section of a tumour which formed upon the head of the tibia, and gave an appearance of immense size to the knee-joint. Besides the general volume given to the knee, there was a protuberance of the size of a large egg, having a smooth surface, and a bluish or livid hue, from the contents shining through; which is still seen in the preparation. The limb was removed; and, upon examination, the tumour was found to consist of a hard substance with a great many cavities or cells which were filled with bloody serum, and also with coagulated blood, of long standing.
690. The joint of the above-mentioned knee, with the head of the tibia in which the tumour was formed; showing that a part of the tumour protruded into the cavity of the joint.
691. A knee-joint in which the lower part of the femur is affected in a manner similar to Nos. 689 and 690. The fungous excrescence from the femur is seen protruding into the cavity of the joint.
692. Two sections of the left foot of a female who was a patient in St. George's Hospital; from the sole of which proceeds a cancerous fungus.
693. A section of the tail of a horse, showing a diseased state of the parts re-

sembling cancer. [The disease appears to have originated in some violence done to the caudal vertebræ, between which and the skin is a scirrhus tumour of a dark colour; which, had the disease proceeded to suppuration, would probably have become a fungated sore.]

694. A cancerous fungous excrescence which arose from the edges of the cicatrix, after the removal of an enlarged testicle suspected to be scrofulous.

SERIES XXI. Small-Pox.

695. Part of the lips and cheek, to show what was considered an appearance of small-pox pustules on the inside of the mouth. [Whatever the appearance might originally have been, there are now not any pustules distinctly visible within the margin of the lip.]
696. Part of the palate, to show a similar appearance on the roof of the mouth; but equally indistinct.
697. The head, trunk, and upper extremities of a child which was born with the small-pox. Its mother had just recovered from that disease before delivery. The pustules are pretty full, [numerous] well formed, and distinct. The cuticle is removed in several places, to show the sloughs in the cutis.
698. The right thigh, leg, and foot of the same child.
699. Part of the left thigh and leg of the same child, prepared in the same manner.
700. The left foot of the same child; the cuticle removed.
701. The right foot of a child which was born with considerable eruptions on it; not the small-pox.
702. The left foot of the same child.

SERIES XXII. Gout.

703. Bones of the carpus, showing gouty matter on their articulating surfaces.
704. Bones of the carpus and metacarpus, with the same kind of matter deposited on them.

- 705. A section of the first phalanx of a finger, to show the articulating surface covered by a deposit of gouty matter.
- 706. A thumb with the first joint laid open, in which the same appearances are observable; and upon the last joint is a cavity in which was contained the same kind of gouty matter.
- 707. A finger in which gouty matter is deposited on the flexor tendons.
- 708. A similar preparation.
- 709. A similar preparation. The middle joint is opened from behind, showing gouty deposit.
- 710. A knee-joint exposed, showing the cartilages of the os femoris and patella, and some of the ligaments, covered with gouty matter.
- 711. The astragalus. Its articulating surfaces showing the same circumstances.
- 712. The os calcis, exhibiting the same appearances.
- 713. Bones of the tarsus in the same state. The gouty matter is here seen on the articulating surface of the os naviculare and cuboides.

SERIES XXIII. Syphilis.

1. *Phymosis and Paraphymosis.*

- 714. A natural phymosis of the prepuce.
- 715. A penis with phymosis.
- 716. A penis on which the operation for phymosis has been performed.
- 717. A penis from which the prepuce had been circumcised.
- 718. A penis in which the prepuce is adhering to the glans, in consequence of chancre. [The skin is closely contracted over the anterior surface, barely leaving an aperture for the passage of the urine. A remarkable circumstance is observable in this preparation, viz. hair has been produced on the anterior part of the penis, probably in consequence of increased action in the vessels of the part, as in the preparation No. 117.]
- 719. A penis with a natural paraphymosis.

2. *Chancre.*

- 720. A penis in which the frænum and part of the urethra have been destroyed by chancre. A bristle is placed in the aperture thus formed.

- 721. The anterior part of a penis in which ulceration had taken place at the frænum, and made an opening into the urethra, which remained after the ulcer had healed. A bristle is introduced into the external meatus of the urethra, and tied round the septum between the two passages.
- 722. A penis where a chancre had existed on the glans; to show that the sore had not been filled up by granulations while healing.
- 723. The anterior part of a penis showing the same appearance.
- 724. A penis in which the prepuce and corona glandis have been destroyed by chancre: to show the appearance of the parts after the healing of a venereal ulcer.
- 725. A penis in which great part of the glans is destroyed.
- 726. The anterior part of a penis, in a state of extensive ulceration, protruding through a large ulcer in the prepuce.
- 727. A penis where the glans is protruding through the upper part of the prepuce in consequence of ulceration; but the parts have been perfectly healed.
- 728. The scrotum, with the remains of a penis which has been almost wholly destroyed by the venereal disease: the part, however, is now healed.
- 729. A penis, with small warts on the prepuce; and an accumulation of caseous or semi-cuticular matter on the glans, from neglect.
- 730. The prepuce covered by large venereal warts; the glans penis being destroyed.

3. Secondary or Constitutional Affection.

- 731. A section of a head to show a venereal affection of the septum nasi and palate. The septum has been destroyed, and the os palatum is exfoliating.
- 732. Part of a head to show a venereal affection of the ossa nasi, septum, superior maxillary bones, and palate; on all of which parts great ravages have been committed.
- 733. A septum narium in which there is a large opening that remained after the healing of a venereal ulcer.

SERIES XXIV. Gonorrhœa, Strictures, and their Consequences.

1. *Strictures.*

734. An urethra laid open to show a permanent stricture. It is situated at about two inches from the glans penis, and may be said to be only in an incipient state. The patient probably felt little inconvenience from it.
735. Portions of three bougies which have impressions of stricture in the urethra on them. The impressions are very near their points.
736. Portions of three bougies with similar impressions on them, at a considerable distance from their points.
737. Portions of two bougies, with impressions of stricture in the urethra of a boy seven years of age.
738. The bladder and penis of a boy seven years of age, laid open to show a stricture in the urethra, with a small calculus behind it.
739. The penis and bladder of a gentleman, who died of mortification of his bladder from retention of urine, in consequence of stricture in the urethra, and a small calculus which had lodged behind it, and acted as a valve. The bladder and urethra are laid open: the muscular coat of the bladder is thickened, and the inner surface fasciculated. The calculus is seen immediately behind the stricture, and a canula is introduced from the glans into the urethra, to show the practicability of destroying the stricture with caustic.
740. A penis in which the urethra is diseased in the bulbous part; it has become very irregular in its surface for near an inch, and also contracted and dense in its substance.
741. Part of a diseased urethra, laid open. The inner surface had become very irregular; and there is an excrescence in it which may be called a caruncle.

2. *False Passages, from the improper use of Bougies.*

742. A stricture in the urethra where caustic had been applied; but missing the stricture, it formed a new or false passage. The penis is laid open in such a manner as to give a lateral view of the parts.

743. An urethra laid open to show a false passage made by bougies, through nearly the whole length of the canal. A bristle and a bougie point out the extent of the new passage.
744. A bladder and urethra laid open. There was a stricture in the urethra, and a new or false passage has been made for some extent into the corpus spongiosum urethræ, by the improper use of bougies. A large bougie is placed in the natural canal, and passes from the sound to the unsound part of the urethra; and a small one is introduced into the false passage. The urethra at the bulb is extensively ulcerated; the crura penis and bulbous part of the urethra are all blended together by inflammation and suppuration; and large sinuses are seen leading from the urethra into the surrounding parts.
745. A bladder and urethra laid open. The bladder is much thickened, and both it and the urethra are incrustated with calculous matter. [There is a false passage through nearly the whole extent of the urethra, apparently made by the improper use of instruments; and bougies are placed in canals probably formed by the same means, which lead towards the perinæum.]

3. *Ulceration and Abscess in consequence of Stricture.*

746. A bladder much thickened and contracted, in consequence of stricture in the urethra. There is a fistulous opening from the urethra to the external surface behind the frænum; and a false passage leading from the urethra at the beginning of the membranous part, in which is placed a bougie. The inner membrane of the bladder is in a diseased state, with an excrescent fungous growth arising from its right side.
747. A penis and part of the bladder; both are laid open; the urethra has a stricture near the bulb, in consequence of which there are large fistulous openings in perinæo; disease of the prostate gland; and great enlargement of the ureters.
748. An urethra with a stricture about two inches and a half from the glans; and fistulous canals leading from the membranous part of the urethra to the perinæum.

749. Part of a bladder and urethra, laid open to show a stricture at the anterior part of the membranous portion of the urethra.
750. An urethra and bladder laid open to show that ulceration was taking place in the membranous part of the urethra to form a new passage for the urine; in consequence of four strictures, whose situations are pointed out by bristles inserted into them. The urethra is diseased through almost its whole extent; the spongy texture of the parts is nearly obliterated, having become rather ligamentous than spongy; and the bladder is much fasciculated.
751. A penis and bladder, showing extensive ulceration of the urethra beyond the scrotum; and a fistula in perinæo.
752. A thickened and fasciculated bladder, with fistula in perinæo, in consequence of stricture in the urethra. A white bristle is passed through the stricture, and a black one through the principal sinus of the fistula.
753. A penis, scrotum, and part of the bladder. The urethra has been laid open to show a contraction of considerable extent, anteriorly to the verumontanum. This contraction is marked by bristles. [It is sufficiently evident that in an endeavour to relieve this constriction by the use of bougies or other instruments, the urethra has been lacerated, and a new passage formed, (which is indicated by a black bristle;) in consequence of which the urine escaped, an abscess formed, and extended to the scrotum and buttocks, occasioning numerous external fistulous openings, many of which are also pointed out by bristles.]
754. A bladder, scrotum, and penis, partially laid open to expose the cavity of an abscess in the perinæum, communicating with, and probably originating in, the urethra; and, like the preceding preparation, having a number of fistulous canals opening externally.
755. The penis and bladder from a case in which ulceration, escape of urine, and mortification, extended throughout the whole length of the canal of the urethra and body of the penis. The bladder itself is exceedingly thickened, and its internal surface is in a highly inflamed state.

4. *Bladder diseased in consequence of Stricture.*

756. A bladder diseased in consequence of stricture in the urethra.
757. A portion of bladder diseased in consequence of stricture. [Its internal

surface has been highly inflamed, and is incrustated with coagulated lymph and calculous matter.]

758. A bladder thickened ; and pouches formed by the protrusion of the internal membrane between the muscular fibres ; in consequence of stricture of the urethra.
759. The bladder and urethra of a gentleman, laid open to show a stricture which occupies part of the bulb and the whole of the membranous portion of the urethra. Caustic had been applied to the stricture, and the urethra at that part is considerably dilated. The bladder is much thickened in consequence of the difficulty of expelling the urine.

5. *Diseased Prostate.*

760. A diseased bladder and prostate gland ; probably the bladder in consequence of disease in the gland, as also in that part of the urethra. The prostate gland is become honey-combed from small ulcerations having taken place in it, all of which communicate with the urethra, and make this part very irregular. How far this disease in the gland arose from a stricture, it is difficult to say ; none being found. The bladder is opened on its anterior part.
761. Part of a penis and bladder laid open, to show abscess and ulceration of the urethra and prostate gland, in consequence of stricture.
762. A bladder and penis laid open to show a stricture in the urethra, just before it reaches the bulb. The stricture had been of long standing, because it had produced disease in the parts beyond it ; such as ulceration in the bulbous part, increased size of the prostate gland, and great increase of thickness of the coats of the bladder.
763. An enlarged prostate gland ; the bladder with cells formed of the internal membrane ; the ureter and pelvis of each kidney are dilated, and the substance of the gland absorbed [in consequence of stricture in the urethra].
764. Part of the bladder, with the prostate gland, and part of the urethra of a gentleman. The prostate gland had been enlarged, but not in consequence of stricture, and was considerably reduced by the use of cicuta. The bladder and urethra are laid open, showing a sulcus formed on each

- side and behind the caput gallinaginis, just at the entrance into the bladder, forming what may be called a valve.
765. Enlarged prostate gland; the enlargement is chiefly in its lateral portions.
766. Enlargement of the posterior part of the prostate gland.
767. A prostate gland, the posterior part of which is enlarged, and projects forwards; forming a cul de sac between the urethra and bladder. There are small calculous concretions in the ducts of the prostate gland.
768. The bladder of a gentleman, thickened and inflamed. The posterior part of the prostate gland is enlarged; and projecting forwards, has been slit or lacerated in introducing the catheter.
769. A diseased prostate gland, with part of the bladder and urethra laid open to expose the ducts of the prostate, which are considerably enlarged; and an encysted tumour is situated on the outer and posterior surface of the bladder, between the terminations of the ureters.
770. The bladder of a gentleman aged sixty-six, in a diseased, contracted, and exceedingly thickened state, communicating with a large cavity at its posterior part, into which the urine used to pass. [An artificial opening was accidentally made into this cavity seventeen days before the death of the patient, by a catheter being forced from the urethra through the posterior part of the prostate gland, instead of being introduced as intended, into the cavity of the bladder.]
771. An enlarged prostate gland, with a sacculated bladder.
772. The bladder, prostate gland, and part of the urethra of a man who died in consequence of a retention of urine: the obstruction partly arose from an enlargement of the prostate gland, generally; but more particularly from the posterior part of the gland having become so large as to form itself into a kind of tumour, there filling the orifice of the urethra, and projecting into the cavity of the bladder: besides which, there is a calculus in the urethra, lying on the caput gallinaginis.
773. The prostate gland considerably enlarged: the posterior part, [or what has since been called the middle lobe] is seen projecting to a great extent into the cavity of the bladder. A bougie is placed in the urethra, marking its situation.
774. A singular enlargement of the prostate gland, particularly on its left side; which has left an opening of a semilunar form leading to the urethra.

The bladder is fasciculated in consequence of the difficulty of voiding the urine.

775. A fasciculated bladder laid open to show an enlarged prostate gland. The enlargement has taken place in a similar way, and the opening into the urethra had the same form as that in the preceding preparation. The posterior projecting part of the gland had been perforated by the catheter five years before death; during which period that instrument was always introduced through the false passage into the bladder. [The false passage, which is indicated by a bougie, was found however to be by no means of so great extent as the appearance of the part seemed to warrant, before the gland was laid open.]
776. A bladder very much thickened and fasciculated. The prostate gland is enlarged, and a pyriform tumour of considerable dimensions has been formed on its posterior part, and projects into the bladder. This tumour was the cause of uncertainty in introducing the catheter, which commonly passed on one side or other of the projection, and lacerated the lateral parts.
777. A bladder and urethra laid open anteriorly, to show the prostate gland very much enlarged. [That portion of the prostate gland which Mr. Hunter describes as "the posterior or valvular part," is divided into two projecting lobes; but it is easy to conceive that this division may have been produced by the forcible introduction of instruments at some former period; (of which there are more than one example in the collection.) The lateral parts of the gland are also considerably augmented in size.]

6. *Ureters and Kidneys diseased in consequence of Stricture.*

778. The penis and bladder from a man who died in St. George's Hospital. There had been a stricture in the membranous part of the urethra; behind which, ulceration took place, the urine became effused into the membranous part of the urethra, and the patient died. Both ureters are very much dilated, particularly the right.
779. A section of the left kidney, whose ureter, pelvis, and infundibula, are greatly enlarged, in consequence of disease in the bladder; occasioned by stricture in the urethra.
780. A kidney whose ureter, pelvis, and infundibula are very considerably

enlarged, in consequence of a stricture in the urethra, accompanied by disease of the bladder.

781. An ureter enlarged in consequence of a stricture in the urethra. [Apparently removed from the bladder No. 778.]
782. The pelvis of a kidney much enlarged: and the ureter, which is unusually tortuous, makes a close turn upon itself, and is firmly united to the descending portion.
783. A section of a kidney with its ureter laid open, to show a stricture in it. [The coats of the ureter are much thickened, in consequence of the obstruction.]
784. The kidney of a sheep, of which the substance is much wasted, and what remains is converted into a large cyst. The ureter was impervious at its lower part.
785. The pelvis of an Argus pheasant, with the kidneys and ureters in situ. [The kidney on the right side appears to be unusually large, and its ureter in a natural state; but the kidney on the left side is either exceedingly diminutive, or some part of it has been dissected away, the better to expose its ureter, which is distended to about twenty times the size of that on the right side of the body. The cause of the obstruction and enlargement is not apparent.]

SERIES XXV. Hydrophobia.

786. The œsophagus of a man who died with symptoms of hydrophobia. [The cuticular lining of the œsophagus has a cracked and parched appearance, particularly towards the lower part of the preparation. A transverse portion of the cuticle has been removed in order to show by comparison the smoothness of the surface of the inner or mucous membrane of the canal.]
787. The lower part of the œsophagus, with a portion of the stomach, of a man who died with symptoms of hydrophobia, from a bite. [The œsophagus shows an appearance in the cuticular lining similar to that in the preceding preparation: this extends no further than the termination of the cuticle. The surface of the stomach has an abraded appearance.]

DIVISION III.

DISEASES ARRANGED ACCORDING TO THE PART.

SERIES XXVI. Fauces and Œsophagus.

1. *Fauces.*

788. **T**HE parts constituting the fauces, to show the tonsils in an enlarged state.

2. *Œsophagus.*

789. The pharynx, with a portion of the œsophagus laid open, to show a stricture at the beginning of that canal.
790. A similar preparation, but the constriction is in a greater degree.
791. A similar preparation, with the constriction still greater.
792. An œsophagus with a stricture of great extent, not attended with ulceration. Its coats are very much thickened and indurated, and upon the cut surface may be observed many white transverse lines formed by the cellular membrane interposed between the thickened muscular fibres. This preparation may be considered as a good example of scirrhus in muscular parts.
793. The pharynx and œsophagus laid open to show stricture and ulceration. [The thyroid gland is enlarged.]
794. A similar preparation, with thickening and ulceration of the pharynx and œsophagus. [The thyroid gland is enlarged; and the ulceration has extended through the coats of the pharynx behind the thyroid gland, which is in some degree affected by it. A bristle marks the course of the ulcer.]
795. The œsophagus laid open to show extensive ulceration.
796. The œsophagus extensively ulcerated.
797. The œsophagus of a woman laid open to show an ulcer communicating with the lungs.

SERIES XXVII. Diseases of the Stomach.

1. *Accidental Injury.*

798. A portion of the stomach of a young woman who poisoned herself by taking arsenic, and died in about thirteen hours.

2. *Ulceration.*

799. A portion of the stomach of a person who died of hæmorrhage, in consequence of the rupture of a vein in the stomach. [The vessel is injected, and from its size appears to be varicous. The aperture by which the blood escaped is very obvious.]
800. A portion of stomach with two ulcers on its internal surface.
801. A portion of the stomach of a young lady seventeen years of age, which has a small ulcer through its coats. The ulcer is situated on the anterior surface near the cardiac orifice: its edge is almost smooth, and the parts immediately surrounding it are nearly of their natural thickness.
802. A portion of the stomach of a man who died in St. George's Hospital, in which there is a broad ulcer on its internal surface. In one part it had extended through the coats of the stomach, making a large hole.
803. A part of the stomach of a porcupine, in which are three large ulcers, one of which extends through its coats; they were caused by a large bezoar.
804. A small portion of the stomach of a porcupine, to show an ulcer at the pylorus, produced in consequence of the stomach containing a large bezoar. [This and the preceding preparation are not stated to be, but probably are, parts of the same stomach.]
805. A portion of the stomach of a nobleman, in which an ulcer had destroyed all the coats, leaving an aperture near the pylorus, through which the contents of the stomach passed. The pylorus was very much contracted, and had lost its valvular structure. "This hole in the stomach
"must have been some time in forming, because its edges were thin,
"round, and regular, like those of a cicatrized wound. Perhaps it
"arose at first from an ulcer, and whilst the coats of the stomach in that
"part became thinner by the suppuration, (till they were quite eaten

“ through,) the edges or circumference of the sore were in a state of
 “ healing, and at last were completely cicatrized.” [Bristles are placed
 in the biliary and pancreatic ducts.]

3. *Scirrhus and Cancer.*

806. A portion of a human stomach with a scirrhus pylorus, laid open.

807. A similar preparation ; the disease very distinctly marked.

808. The small end of a human stomach, laid open to show its coats thickened
 and become almost as firm as cartilage. The disease terminates abruptly
 at the pylorus.

809. The small end of a stomach, to show a diseased pylorus. [Presented to
 Mr. Hunter by Dr. Pitcairne.]

SERIES XXVIII. Diseases of the Intestines.

1. *Accidental Injury.*

810. A portion of the jejunum of an officer who was wounded in a duel, and
 died twenty-four hours after receiving the injury.

811. Another portion of the same intestine, which the ball had wounded, and
 taken a piece out. The edges of the wound are thickened and pro-
 truding ; and coagulated lymph is seen filling and covering the orifice.
 “ It shews,” Mr. Hunter observes, “ how ready nature is to secure all un-
 “ natural orifices according to the necessity.”

2. *Inflammation and Ulceration of the Glandular Parts.*

812. A portion of duodenum [of a child] inverted to show an appearance on
 its internal surface resembling inflamed glands. Mr. Hunter adds, “ I
 “ once saw the same appearance before.” [It is certainly an unusual
 one, apparently occasioned by the ducts of solitary glands projecting into
 the canal of the intestine about the 16th of an inch beyond the surface ;
 in the centre of some of which may be observed a follicular orifice.]

813. A portion of small intestine to show the glandulæ solitariae in a state of
 inflammation and ulceration.

814. A portion of small intestine to show the glandulæ aggregatae inflamed.

The external surface is also in an inflamed state ; and had formed adhesions.

- 815. A portion of small intestine laid open to show a large oval cluster of glandulæ aggregatæ in an inflamed state.
- 816. A portion of small intestine showing several glandular parts in a similar state.
- 817. Glandular parts in a state of inflammation. [Apparently in a portion of intestine.]
- 818. A portion of small intestine with a cluster of glandulæ aggregatæ in an inflamed state.
- 819. A similar preparation.
- 820. A portion of small intestine [the ilium] showing several small ulcers in the glandulæ aggregatæ. The intestine is injected.
- 821. A similar preparation. [Apparently another portion of the same intestine.]
- 822. A portion of small intestine, [apparently the ilium,] ulcerated in several distinct circumscribed spots. From a person who died of dysentery. The ulceration is chiefly confined to the glandulæ aggregatæ.
- 823. A portion of jejunum inverted, to show a large patch of glandulæ aggregatæ which were probably in an inflamed state.

3. Inflammation, Ulceration, and Diseases of the Coats.

- 824. A portion of small intestine laid open to show traces of active inflammation.
- 825. A portion of intestine very much thickened and indurated, and the villous surface covered with coagulated lymph. [The intestine is folded upon itself, and the two portions are so closely united, that at the first view it has the appearance of an introsusception ; but by tracing the canal, its real course becomes evident. It is apparently a part of the colon.]
- 826. A portion of the ilium laid open, and the cæcum inverted, to show the inner surface lined with coagulated lymph.
- 827. The valve of the colon enlarged.
- 828. Two portions of colon in an inflamed state : they are considerably thickened, and highly rugous.

829. A portion of the colon of a lion, in an inflamed state, and the internal membrane greatly thickened in consequence. The intestine is injected.
830. A portion of small intestine in which the villi appear to be eroded. [There is an adhesion between two parts of the external surface, which is marked by a bristle.]
831. Two portions of intestine laid open to show a number of flattened protuberances on their inner surfaces, some of which are hollow [concave] in consequence of being diseased and ulcerated.
832. A portion of intestine of considerable extent, laid open to show a number of ulcerations on its internal surface: some of them are of large size.
833. A portion of jejunum, to show an ulcer through its coats. [On its external surface may be observed a firm layer of coagulated lymph, which prevented a communication between the canal of the intestine and the cavity of the abdomen. In the mesentery are some glands very much enlarged.]
834. A portion of intestine perforated by an ulcer.
835. A portion of jejunum perforated by an ulcer.
836. A portion of small intestine laid open, in which it appears that the villous coat has been destroyed in several parts, to the extent of an inch or more; the adjoining portion of that coat terminating all round in a loose edge.
837. Part of the ilium, cæcum, appendix cæci, and colon. In the cæcum and colon the villous coat is eroded in several places, similar to No. 836, [which is apparently from the same subject.]
838. Part of the ilium, cæcum, appendix cæci, and colon laid open. In the ilium and appendix cæci are several small circumscribed ulcers, with thickened or raised edges.
839. The termination of the ilium and valve of the colon in a diseased state. The cavity of the appendix cæci is partially obliterated.
840. A portion of the colon greatly constricted, and ulcerated through its substance.
841. A portion of colon, the internal surface of which is ulcerated in several places, in consequence of the West India flux.

842. A portion of colon which had been ulcerated from the same disease. The person recovered from the flux, and died from another malady.
843. A portion of the colon of a nobleman, with numerous ulcerations on its internal surface.
844. A portion of the rectum of a lady who died of dysentery; showing ulceration of its internal coat. [Bristles are placed under various folds of the villous coat, to show the insidious character of the ulceration.]
845. A portion of the colon of a lion, laid open, to show its villous surface ragged in consequence of ulceration. [Long flakes of coagulated matter float in the cavity of the intestine.]
846. A portion of jejunum, showing soft white matter, apparently scrofulous, deposited in small masses between the peritonæal and muscular coats, along that part of the intestine furthest removed from its attachment to the mesentery; extending the whole length of the preparation, and giving to that part the appearance of an aggregate of inflamed glands.
847. The villous coat of the colon become thickened, and appearing as if composed of a congeries of small hydatids. [There is no further history of this preparation, and it is therefore difficult to determine if it be from the human body or not. These vesicles bear a striking resemblance to those observable on the intestines of hogs which are killed in the summer months, as shown in the preparation No. 600, with this difference, that they are here, on the internal, in that on the external surface.]

4. *Concretions.*

848. A portion of the colon of a horse with small calculi in its substance. [These concretions are of a dark-brown colour.]

5. *Strictures.*

849. Part of the colon laid open to show a stricture of that gut; from a woman who died in consequence of that complaint. [It is evident that an almost total obstruction had taken place. The intestine above the stricture is much dilated: below, it is in a very contracted state.]
850. Part of the colon laid open, to show an ulcerated stricture immediately above the rectum.
851. The rectum laid open to show an ulcerated stricture in it.

852. The rectum and vagina of a woman laid open; to show a stricture [or rather a contracted state] of the rectum, attended with piles; and a fistulous communication between it and the vagina.
853. The rectum of a man laid open. The lower part of the intestine, for about four inches in extent, is very much thickened, and of a scirrhus hardness; the canal tortuous and contracted. The part above the stricture is much dilated. The posterior part of the bladder remains in situ, and shows the prostate gland to be unaffected by the contiguous disease.

6. *Scirrhus and Cancer.*

854. The bladder and rectum of a man laid open, showing both to have been in a deplorable state of disease. [The rectum is exceedingly thickened; and a deep ulcer communicates with the cavity of the bladder. Cancerous excrescences surround the orifice of the ulcer, and project into the cavity of the bladder just above the termination of the ureters.]
855. The rectum of a gentleman in a very diseased state laid open. [The patient about ten years before had been afflicted with piles, but had been cured. A year before his death he was attacked with disease of the rectum, which occasioned great pain and difficulty in voiding the contents, which were accompanied by much blood and slime; and he became exceedingly debilitated. On examination, some months after the commencement, a hard ridge was felt about three inches above the anus, passing obliquely round the gut. In May 1791, after various ineffectual modes of treatment, the patient died. On an examination after death it was found that the rectum, from within an inch of the anus to about five inches above it, made one broad ragged ulcer terminating in a ridge both above and below. On the side next to the bladder, the intestine had been destroyed by ulceration; and a communication with the cavity of the abdomen would have been formed, had it not been for some adhesions, which prevented the escape of the contents of the bowel into that cavity. The surrounding parts of the ulcer were hard, or what is commonly called scirrhus; almost as dense as gristle. Mr. Hunter concludes by asking, "As there were not any lymphatic glands affected, how far was this disease "to be accounted a cancer?"]

SERIES XXIX. Diseases of the Anus.

1. *Piles.*

- 856. Stricture of the rectum, together with piles internally and externally. The patient had a continual diarrhœa.
- 857. The rectum laid open, to show internal piles.
- 858. The rectum laid open, to show some small piles.
- 859. A similar preparation.
- 860. The rectum laid open, to show internal piles. [There are two transverse ridges: the most internal of these is turgid with coagulated blood; the other, near the verge of the anus, appears to have burst and collapsed. On the cut edges of the bowel may be observed sections of some of the coagula.]
- 861. Internal piles, some of which are very turgid.
- 862. A pile. [This preparation is apparently a portion of No. 861, removed and dissected to show that a pile is composed of varicous veins; which are here seen filled with coagulated blood.]
- 863. Piles which surrounded the termination of the rectum of a gentleman, and were removed by operation.
- 864. The rectum laid open to show large piles at the verge of the anus.

2. *Fistulæ.*

- 865. A portion of the rectum, to show two large external piles; and fistula in ano. A bristle points out the communication between the fistulous canal and the intestine.
- 866. The lower portion of the rectum laid open; with a fistula in ano, marked by a bristle.
- 867. A portion of the rectum and vagina. A fistula in ano is seen extending along the side of the rectum; it is partially laid open, and bristles are placed in the external and internal orifices.
- 868. The lower part of the rectum, to show fistulæ in ano, which have been laid open; attended with piles, and a contraction of the intestine a little way within the anus, which occasioned dilatation of the bowel beyond it. The patient had a continual diarrhœa.

SERIES XXX. Introsusception.

869. An introsusception found in a lady who appeared to die in consequence of a polypus in the uterus. It is an introsusception of one part of the jejunum into another, downwards.
870. An introsusception (or inversion) of the uterus. [This occurrence took place in a young lady, in consequence of a polypus, which had formed at the fundus of the uterus, near the orifice of the left Fallopian tube; and as the polypus increased, the fundus became inverted, drawing in the broad ligaments and Fallopian tubes after it. The inversion is oblique, the orifice of the left tube projecting through the os tinæ into the vagina, both of which are much dilated in consequence. The disease had been making progress for about three years. Dr. Denman was consulted, and having in some degree ascertained the nature of the disease, he applied a ligature round the neck of the polypus: this was occasionally tightened, but in consequence of the previous condition of the patient she became exhausted, and died just as the separation had taken place. The polypus is seen lying below the preparation. Bristles are placed in the orifices of the Fallopian tubes. This and the preceding preparation are from the same individual.]
871. Introsusception of the small intestine in a child four years of age. [There are three introsusceptions within two inches of each other, and situate apparently in a portion of the ilium.]
872. An introsusception of a great portion of the small intestines into the colon. From a male child aged nine months. [It is an introsusception of the ilium and its mesentery, together with the cæcum and ascending colon, into the descending part of the sigmoid flexure of the colon.]
873. An introsusception of a considerable portion of the ilium into the colon of a dog; [in which the usual consequences, inflammation and turgescence of the parts, have followed.]
874. A volvulus in the small intestine of a cat. [This preparation shows two introsusceptions; one progressive, the other retrograde.]

SERIES XXXI. Hernia.

1. *Intestines that have been strangulated.*

875. Intestine strangulated in consequence of an adhesion between two parts of the mesentery. [It occurred near the termination of the ilium at the valve of the colon. The intestine has given way at this part.]
876. A portion of intestine which had been strangulated. [It is apparently ilium, and has been very closely constricted. The part below the constriction is thickened and opaque; the upper portion has been distended, and is bursten.]
877. A portion of small intestine, part of which has been strangulated in a hernia. The impression of the stricture is very evident.
878. A portion of small intestine that has been strangulated in a hernia.
879. A portion of small intestine that has been strangulated in a hernia. [The part which suffered the constriction is thickened and opaque; and shows also the effects of inflammation on its surface.]
880. A portion of small intestine that had been strangulated twenty-four hours. [It appears to have been highly inflamed, and coagulated lymph is seen covering a considerable part of its external surface. The intestine has been injected; but it is doubtful if any part of the coagulum has received the injection.]

2. *Hernial Sacs.*

881. A hernial sac. [The tunica vaginalis testis is opened and reflected back. The testicle is seen, reduced in size, at the lower part of the preparation. There are only a few very slight adhesions between the peritonæal sac and the tunica vaginalis.]
882. A portion of a hernial sac, to show the valvular appearance of its internal orifice.
883. A large hernial sac laid open; with portions of coagulated lymph near its orifice, the effects of inflammation.
884. A hernial sac, with adhesions of omentum round its upper margin.

885. A small hernial sac, laid open, to show the omentum adhering to its inner surface.
886. A hernial sac laid open, to show several very firm adhesions between it and a large portion of omentum which is contained in it.
887. A hernial sac containing omentum.

3. *Inguinal Herniæ.*

888. A hernial sac from a case of inguinal hernia, with the portion of small intestine which had been strangulated: the sac is laid open. The portion of intestine which formed the hernia is suspended separate from the sac, and shows that it had burst. [From the appearance of the parts, an operation for relieving the constriction had been performed.]
889. An inguinal hernia complicated with hydrocele. The hernial sac is laid open to show a portion of omentum adhering to its internal surface. The tunica vaginalis is opened on the opposite side of the preparation showing the testicle in situ.
890. The testis, tunica vaginalis, and spermatic chord, in a case of hernia complicated with hydrocele; and an encysted tumour of the chord. The tumour is seen on the anterior part, above the hydrocele, and the hernia at the upper and posterior part.
891. The sac of an inguinal hernia divided into two cavities by an incomplete transverse septum in the middle. Omentum is contained in both cavities.

4. *Congenital Herniæ.*

892. The sac of a hernia congenita.
893. The tunica vaginalis in a case of hernia congenita, laid open. The hernia is formed by omentum, which is seen in the sac.

5. *Femoral Herniæ.*

894. The parts which constituted a femoral hernia of the right side; from a female patient in St. George's Hospital.
895. A femoral hernia from a woman. The intestine could not be returned, which occasioned her death. Part of the ilium and epiploon are down. On one side the stricture is exposed.

6. *Umbilical Herniæ.*

896. The sac of a small umbilical hernia, from a case in which part of the contents of the abdomen passed out and in occasionally.
897. Part of the abdominal muscles showing the sac of an umbilical hernia from a woman who died within twenty-four hours [after an operation to relieve strangulation of the intestine]. The intestine and epiploon are adhering all round the opening, to exclude the external influence.

7. *Herniæ in Quadrupeds.*

898. A hernia from a monkey, containing a portion of the colon and epiploon.
899. A hernial sac from a bitch ; containing the uterus, intestine, and a large portion of omentum.
900. A hernia of the urinary bladder, from a lion.
901. A hernial sac, with a large portion of intestine and omentum contained in it.
902. A hernial sac from a horse ; containing a large portion of the colon. The parts are adhering together in consequence of inflammation.

SERIES XXXII. Diseases of the Liver and Gall-bladder.

1. *Tubercles and Abscess.*

903. Part of the liver of a woman, the whole substance of which was of a lighter appearance than common, and is composed of small bodies of the size of millet seeds.
904. Section of the liver of the animal called L'Agouti, (Buffon.) filled with small white tumours.
905. Section of a thickened liver ; very uneven on its surface, and full of fatty tubercles throughout its substance.
906. A portion of the liver of a woman, full of fatty tubercles.
907. A portion of liver in a tuberculated state. [Many of these tubercles have suppurated.]
908. A portion of liver to show the cavity of an abscess.
909. A portion of the liver and of the lungs adhering to the diaphragm. From

the cavity of an abscess in the liver, bristles are passed through the diaphragm into the ramifications of the bronchiæ. Through these openings the matter of the abscess passed into the lungs, and was discharged by expectoration.

2. *Gall-Bladder and Ducts diseased in consequence of Calculi.*

- 910. A diseased gall-bladder laid open. [It probably contained a biliary concretion.]
- 911. A gall-bladder laid open and inverted. A large calculus occupied its fundus; in consequence of which it has lost its natural or honey-comb appearance, and become fasciculated.
- 912. An enlarged, thickened, and fasciculated gall-bladder, which contained several calculi. [It is inverted to show more clearly its fasciculated surface, and several minute concretions, which are imbedded in its inner coat.]
- 913. Several biliary concretions from one gall-bladder. [Each concretion has numerous flattened surfaces, in consequence of mutual apposition.]
- 914. A diseased gall-bladder with a calculus in the cystic duct, which is in consequence dilated so as to appear like a part of the gall-bladder.
- 915. A diseased gall-bladder. [It has two calculi impacted in its cervix. Below these, the cystic duct is not enlarged. The gall-bladder, though not of great dimensions, is very thin in its coats, and has lost its natural reticulated structure, apparently in consequence of distention.]
- 916. A large biliary calculus in the neck of the gall-bladder. [Part of the liver and the duodenum remain in situ, and are apparently affected with melanosis.]
- 917. A biliary calculus imbedded in a cyst of cellular membrane contiguous to the cystic duct, from which it has probably escaped by ulceration. The biliary ducts are much dilated.

SERIES XXXIII. Diseases of the Spleen.

- 918. The spleen of a gentleman, greatly enlarged. [It is increased to about twelve times its natural size.]
- 919. A small portion of human spleen, in which there is an abscess.
- 920. A portion of spleen studded with small tubercles.

SERIES XXXIV. Diseases of the Kidneys.

1. *Inflammation, Cysts, &c.*

921. The right kidney of a lady. The emulgent vein is laid open, to show that its canal had been obstructed by a firm coagulum of blood.
922. A kidney laid open, to show the pelvis in a state of ulceration; and the ureter thickened, contracted, and lined with coagulated lymph.
923. A section of a kidney in which the pelvis is enlarged, as are also the infundibula. [From the appearance of the mammæ, and the calculous matter remaining, it is probable that a large calculus occupied the pelvis.]
924. A portion of kidney, to show an abscess in its substance. From a man who died in St. George's Hospital, after the operation for the stone.
925. A kidney with a diseased pelvis and ureter. [They are both much enlarged, and lined with coagulated lymph and calculous matter.]
926. A very diminutive kidney, with its ureter much enlarged. The patient never referred to any complaint in this kidney: the other was of the natural size.
927. A diseased kidney; the substance of it being wasted, and the infundibula become globular.
928. Section of an adult kidney, with enlarged pelvis and ureter. In its substance are numerous small abscesses.
929. A kidney with spurious hydatids on its surface; together with tubercles, apparently scrofulous, projecting from it.
930. A kidney almost entirely surrounded by a spurious hydatid or cyst with very dense coats.
931. A section of a kidney, to show fat formed on the pelvis. The ureter is much enlarged, and altered in form. [Both the kidney and ureter appear to be chiefly composed of fat, or of a substance equally semi-transparent and remote from natural structure.]
932. Two sections of a kidney, with a diseased capsula renalis, from a butcher whose sense of smelling was morbidly acute. The pelvis and most of the infundibula are nearly obliterated by a fatty deposition. [The capsula

renalis is very dense, and its extent is denoted by bristles placed in its cut surface: there is also a calculous deposit in the substance of the kidney.]

2. *Kidneys with Calculi.*

933. A portion of kidney, to show the mammæ containing calculous matter.
934. The kidney of a man who died at St. George's Hospital after the operation for the stone, showing a thick sac of condensed cellular [or rather adipous] membrane surrounding it. A calculus obstructs the ureter at some distance from the kidney, in consequence of which the ureter, pelvis, and infundibula are much enlarged, or dilated.
935. A section of a kidney, to show the pelvis and ureter enlarged; and small calculi in the infundibula.
936. The kidney of a dog, with some minute calculi in the pelvis and infundibula.
937. The kidney of a man, which had a great number of small white calculi in the infundibula. These lie at the bottom of the glass.
938. The left kidney of a child who died at St. George's Hospital. The pelvis and infundibula are enlarged, and lined by a layer of coagulated lymph; and calculi are lodged in the infundibula. The symptoms led to the suspicion of stricture.
939. The right kidney of the same child. The pelvis and infundibula are enlarged, and ulceration has taken place, so as to form a communication between the pelvis of the kidney and the cavity of the abdomen, through one of the infundibula.
940. A human kidney divided into two sections. There is a calculus in its pelvis; and there are several ossified cysts in its substance, containing chalky matter. The natural structure of the kidney is entirely altered.
941. A kidney with a calculus in the pelvis passing into the ureter; and another in one of the infundibula.
942. A portion of a kidney, with three large calculi filling the infundibula.
943. A section of the kidney of a female child four years of age, who was cut for the stone. A calculus fills the pelvis, and sends a branch into one of the infundibula.—See No. 954. The Bladder of this child.

944. The kidney of a lad who died at the London Hospital. It contains two large calculi, one of which was increasing in two directions, viz. from the pelvis into the ureter, and into the infundibula; the other from the pelvis into the infundibula only.
945. A kidney of considerable size, laid open, to expose a number of large cells formed in its substance, in consequence of the obstruction occasioned by a large calculus which occupies the pelvis and the beginning of the ureter.
946. A kidney similar to the preceding, (but of much larger dimensions,) and diseased from the same cause; viz. the lodgement of a calculus in the beginning of the ureter, which is much enlarged and thickened.
947. A portion of the bladder and ureters of the same individual from whom the preceding preparation was taken. The internal surfaces of both the bladder, and the ureter which contained the calculus, are ulcerated.
948. A bladder and kidneys. The internal surface of the bladder is much fasciculated, and thickly incrustated with calculous matter, which is cemented together by coagulated lymph:—the ureter and the pelvis of each kidney are much enlarged, and a great proportion of the substance of the kidneys absorbed.
949. A bladder, with the ureters and kidneys: the latter had many calculi in them. [Both ureters are enlarged and thickened. The right kidney had a large calculus in its pelvis, and a small one in its ureter. The left kidney is much enlarged, and contained a calculus in its pelvis, which obstructed the passage into the ureter; and fifteen smaller calculi in various cells, and in the infundibula. The calculi are removed: and the largest specimens are preserved in a dried state in the Calculi-Cabinet.
950. A human kidney whose substance is very much wasted; and it is converted into large cells which have a smooth internal surface.

SERIES XXXV. Diseases of the Bladder.

951. A human bladder in its contracted state, from death having been produced by a blow on the epigastrium. The peritonæal coat has been removed to show the muscular fibres more distinctly.
952. A portion of the fundus of a human bladder, to show its internal coat cor-

rugated ; its parietes of very great thickness ; and externally, its muscular fasciculi unusually distinct.

953. A diseased bladder from which a considerable hæmorrhage had taken place. It is laid open to show coagula adhering to its inner surface ; and some loose coagula are lying at the bottom of the glass containing the preparation. [Nothing further is recorded concerning the nature of the disease, or the cause of the hæmorrhage.]
954. The bladder, uterus, and rectum, from a child four years of age, who was cut for the stone. There is a prolapsus ani ; the bladder is much contracted, thickened, and rugous ; and its internal surface is covered by coagulated lymph. [No. 943 is one of the kidneys of this child, containing a calculus.]
955. A bladder which had been irritated by a stone. It is laid open to show its inner surface covered with coagulated lymph.
956. A bladder in which a calculus had been contained. The part which was occupied by the stone is very distinct from the rest of the cavity.
957. A bladder laid open, to show a stone contained in it.
958. A penis and bladder, laid open, to show a fistulous opening in the perinæum, and a cavity at the bulb communicating with the urethra. These appearances are marked by bristles. [The bladder is ulcerated at the termination of the right ureter, probably in consequence of a calculus resting there ; and from the appearance of the parts, the patient had undergone the operation of lithotomy.]
959. The inferior part of the bladder of a man who was cut for the stone, a short time before his death. There are evident marks of considerable inflammation having followed the operation. The bladder has been laid open from behind ; and bristles are placed in the vasa deferentia.
960. A portion of a bladder in which are several sacs ; some of which contain calculi. [A calculus obstructs one of the ureters near its termination.]
961. A bladder with two sacs at the posterior part, each containing a calculus of an irregular shape, with a crystallized surface. The coats of the bladder are very much thickened in consequence of long-continued irritation. [This is a very remarkable and instructive specimen. The calculi are of considerable dimensions, particularly that on the left side, which not only

fills the sac, but protrudes into the cavity of the bladder, where it might have been readily felt, but could not possibly have been extracted.]

962. A bladder with a small sac on its posterior part, in which a calculus was contained.
963. A bladder with the prostate gland somewhat enlarged. Two sacculi are formed at the posterior part of the bladder by the protrusion of the internal membrane between the muscular fibres; and each communicates by a circular aperture with its cavity.
964. A very remarkable example of sacculated bladder. [It is remarkable on account of the healthy structure of the coats of the bladder and of the urethra, and the unusual regularity of the cells. These are five in number, of a spherical form, and communicate with the bladder by five distinct circular apertures, disposed transversely along the posterior and inferior part of the viscus. The two lateral sacculi are each of the size of a large orange, the three intermediate ones about two-thirds smaller. Their structure appears to be the mucous membrane of the bladder, and condensed cellular membrane externally. The prostate gland is sacculated on one side, but otherwise healthy, so as to present no impediment to the flow of urine; and the urethra, which is laid open, does not appear to have been the seat of stricture, or of any other disease that could have contributed to produce so extraordinary a condition of parts.]

SERIES XXXVI. Diseases of the Uterus.

1. *Of the Ovarium and Fallopian Tube.*

965. A human ovarium laid open. It is but little increased in size, and has numerous small cysts or hydatids throughout its substance, particularly towards its circumference.
966. An uterus with a portion of a very large tumour, [apparently of a scrofulous nature] formed in the right ovarium. The left ovarium is of the ordinary dimensions, but is unusually lobulated.
967. A section of an uterus with a tumour in its fundus. Inflammation in the broad ligament has occasioned an adhesion of the fimbriated extremity

of the Fallopian tube to the neck of the uterus, and an obliteration of both its orifices ; whence it has become distended by its own secretions.

2. *Of the Uterus and Vagina.*

968. A human uterus and vagina laid open. The os tincæ is obliterated.
969. The uterus of a sheep with the cavity of the vagina obliterated. [The cornua uteri appear to have been distended by fluid secreted in them.]
970. "An oviduct." [This preparation has no further description : it appears to have belonged to a gallinaceous or anserine bird, and that the oviduct had become either obstructed or impervious at its termination. The substance contained in it would seem to be the materials of four or five eggs which have followed each other in succession, until the oviduct has become distended through nearly its whole extent.]
971. An uterus and vagina laid open. The uterus is extremely dense in its structure, much resembling scirrhus ; and the vagina is ulcerated in several places. [These ulcers have a singularly defined appearance. The Fallopian tubes in this specimen are unusually short.]
972. A human uterus, in the substance of which, at the fundus, is a scirrhus tumour ; a process from which projects into the cavity of the uterus : and on the opposite side is another scirrhus lobulated mass imbedded in its substance. There is also a small polypous excrescence attached by a long pedicle to the upper part of the cervix uteri.
973. A tumour in the substance of the uterus at its fundus, forming a protuberance on the outside, at the posterior part, and a projection on the inside filling its cavity.
974. An uterus laid open. On its posterior surface is seen, imbedded in its substance, a spherical tumour, the coats of which were become bony. The surface of the tumour has been exposed by dissection ; and contiguous to it is a considerable cavity, from which a similar tumour of larger size has been removed.
975. The above-mentioned tumour, removed from No. 974. Its outer surface is tuberculated, and its internal structure is chiefly bony matter loosely connected.
976. A large tumour in the substance of the uterus at its fundus, which has pro-

duced the stimulus of gestation ; for the uterus is become thick at that part, and the veins enlarged. [The tumour is very dense, having the character of scirrhus strongly marked ; and there is a small cavity in its centre.]

977. A tumour formed either upon the uterus or so connected with it as to adhere to it, and to stretch that part longitudinally to a great extent. The cavity of the uterus is laid open, and appears like a long canal, which is kept extended by pieces of quill.

978. A tumour of very great size, formed upon the posterior part of the os tincæ.

[The tumour appears to have had its origin in the posterior part of the uterus near the os tincæ, and is of a truly scirrhus character. Its section measures twelve inches in length and five in breadth, and from its appearance and position it is probable that a large proportion of the enormous mass protruded externally. A section of the uterus, and urinary bladder, together with the rectum, remain in situ.]

3. *In consequence of Gestation.*

979. A portion of a ruptured uterus, showing the appearance and extent of the laceration. [It is “the lower half of a gravid uterus which had arrived at “the full period of gestation. On the patient accidentally falling, her “labour pains came on, and before she could be delivered the uterus “burst, and the child’s arm made its escape out of the uterus, but did not “pierce the peritonæum at the part where it is reflected over the side of “the bladder, uterus, and inside of the pelvis.” Part of the bladder, and part of the rectum, remain in situ. The extent of the injury is not fully described above, there being a laceration at the posterior part of the cervix uteri near the os tincæ, in addition to that on the side of the uterus, through which the arm of the child protruded. It seems more probable that the uterus was ruptured or lacerated at the time of the fall, and not subsequent to the coming on of the labour pains, as is above implied.]

980. A section of a gravid uterus at the full period of gestation which has been lacerated at the time of delivery. [The os tincæ, as is usual at that period, is much dilated : there is an extensive laceration of the cervix uteri on

the right side, and a smaller one on the posterior part of the uterus. Coagulated blood is seen adhering to the outer surface surrounding the lacerations.]

981. The uterus of a woman, which had burst, or been lacerated, close to the attachment of the bladder, in the time of labour. The child was found in the cavity of the abdomen.
982. A bladder and uterus with the vagina. The vagina was injured in a difficult labour: ulceration followed, and extended from the vagina into the bladder, and ultimately occasioned the death of the patient. [The vagina throughout is incrustated with coagulated lymph mixed with calculous matter. The bladder is exceedingly contracted, in consequence of its being incapable of distention; as the urine found a ready exit by the vagina, as soon as it was secreted.]
983. An urinary bladder, uterus, vagina, and rectum. Ulceration has produced a communication between the vagina and rectum. This preparation shows also a prolapsus uteri.
984. "The vagina, rectum, and bladder communicating."

[The history of this preparation may be found at large in the *Memoirs of the Medical Society of London*, Vol. III. 8vo. Lond. 1792. Art. XXVI. p. 480. "*Case of Laborious Parturition, with the consequences.* By M. Wilkinson, Surgeon, Sunderland." Of which the following is a brief abstract:—*Elizabeth Lawrence* aged 32. July 1748.—In labour with her first child,—pelvis small,—had made no water for two days.—The child's head was opened—and the delivery at last effected by repeated and violent efforts of three people for two hours.—Great suffering, and sloughing afterwards, for six weeks;—prolapsus vaginæ,—rectum communicating;—stools voided through the vagina,—&c.—She died Feb. 2, 1789, nearly forty-one years after her misfortune, at the age of seventy-three.

In the post-mortem examination were removed the whole contents of the pelvis, as low as the anus and os externum.—"A communication was found between the rectum and vagina, sufficient to allow my thumb to pass.—The fore part of the vagina and posterior surface of the bladder just below the opening of the ureters, as also the whole of the urethra were gone; and the remaining part of the anterior

“surface of the vagina adhered across the os tinæ to the posterior surface, so that the os tinæ was wholly obliterated; and on introducing the finger into the vagina it was conducted forwards to the fundus of the bladder, which was pretty perfect.”—&c.—“The parts are in the possession of that ingenious anatomist Mr. John Hunter.”

This description proves how nearly unintelligible and valueless a very interesting preparation becomes when its history is wanting.—The only notice it had, was written on the top of the bottle: viz. “*Vagina Rectum and Bladder communicating.*”]

985. A foetus evidently at the full period of gestation, of which nothing more is found on record than that it was “Expelled by the rectum similar to a natural labour. 1792.”
986. A human ovum from which a section has been removed to expose its cavity. [An extravasation of blood had taken place, apparently between the amnion and chorion, and, coagulating there, has formed a very thick and dense substance. Numerous rounded protuberances or cysts project into the cavity containing the embryo: some of them were filled with fluid blood; one of the largest of these has been laid open, and its contents removed.]
987. The labia pudendi of an infant, showing a peculiar disease of that part, with which very young children are sometimes affected. [The parts are much enlarged, and very turgid, as if in consequence of ecchymosis.]
988. A part of the uterus of a sow, in which the young pig had died and become rotten; in consequence of which the mother died also.
989. A portion of the horn of the uterus of a sheep, containing the head and one foot of a lamb that had remained in utero after the usual period of gestation, and had contracted adhesions to it.
990. An adjoining section of the uterus, showing adhesions between it and the neck of the young animal.
991. Another section, showing similar adhesions between the uterus and one of the hind extremities.
992. A portion of the skin of a calf, that had lain in the uterus of its mother two years after it had arrived at the full period of gestation; still fresh.
993. One of the feet of the same calf.

SERIES XXXVII. Diseases of the Testis, and Vesiculæ Seminales.

994. The tunica vaginalis testis thickened and distended with coagulated blood. This was mistaken for a diseased testicle, and the parts were in consequence removed.
995. A hæmatocele, apparently complicated with bubonocoele. The surface of the tunica vaginalis is furred with coagulated lymph. [This preparation has no history further than its being a hæmatocele.]
996. A testicle with two cysts or hydatids hanging from the epididymis.
997. A testicle diminished in size ; with a small hydatid which had formed on the epididymis, and is attached to it by a pedicle.
998. A section of a testicle with similar cysts.
999. A testicle wasted ; and the tunica vaginalis adhering to it.
1000. A testicle having bony matter deposited in its substance.
1001. A section of a testicle showing the epididymis enlarged, and the tunica vaginalis adherent. [A portion of condensed cellular membrane appears to indicate the track of a sinus for the escape of matter from the circumscribed cavity.]
1002. A scrofulous testicle, divided longitudinally.
1003. A section of a scrofulous testicle, forming one solid uniform mass ; all the natural structure being obliterated.
1004. A scrofulous testicle. [A small abscess has formed on its anterior part, and the body of the testicle is converted into a considerable number of spherical tubercles of a whitish colour.]
1005. A beginning or incipient cancer of the testicle, where the tubular structure has become indistinct, in consequence of the adhesions which have taken place.
1006. A section of a testicle with a fungous tumour, or excrescence, arising from it. [Some caustic or arsenical application had been made to it.]
1007. A testicle of a bull in a diseased state. [The tubuli testis are separated or unravelled by ulceration which had taken place within the body of the testicle.]
1008. The vesiculæ seminales [of a small quadruped] morbidly enlarged. One of the vesiculæ has been opened, and its contents removed.

SERIES XXXVIII. Diseases of the Brain and its Membranes.

1. *Injuries from External Violence.*

1009. Part of the dura mater of a man aged twenty-five, who was accidentally shot through the head with an iron ramrod, discharged from a musket on the 5th November, 1783. [The ramrod penetrated the posterior part of the right parietal bone, and passing forwards obliquely through the brain, came out on the opposite side through the squamous portion of the temporal bone, and through the skin just behind the external angle of the left eye. The ramrod was pulled out with some difficulty by a by-stander. The man was removed from Twickenham to St. George's Hospital, a distance of about ten miles, and survived the accident thirty-seven hours. A bristle marks the course of the rod.]
1010. A portion of dura mater with a layer of coagulated lymph on its inner surface, in consequence of inflammation after an accident.
1011. A portion of dura mater inflamed and furred with coagulated lymph; from a patient who died in St. George's Hospital after the operation of the trepan.
1012. Dura mater thickened in consequence of injury from the application of the trepan.
1013. Dura mater thickened from the adhesive inflammation, in consequence of the application of the trepan.
1014. Dura mater thickened, [evidently from the same cause]. From a negro at St. George's Hospital.
1015. Dura mater with coagulable lymph thrown out on its surface, after the operation of the trepan.
1016. Dura mater thickened. Coagulable lymph has been thrown out, in two places on its external surface, after the operation of the trepan.
1017. A portion of the skull of an ass after the operation of the trepan. The dura mater is firmly attached to the inside of the skull surrounding the aperture, and a fungous excrescence from the outer surface of the dura mater fills up the cavity made by the crown of the trepan.

2. *Disease in the Membranes.*

1018. A portion of the dura and pia mater of a gentleman. A lamella of coagulated lymph is deposited between the two membranes which united them, but they are now partially separated, in order to show the uniting substance more clearly.
1019. A portion of pia mater adhering to the dura mater. [Apparently from the same individual as the preceding preparation.]
1020. A small portion of bone adhering to the outer surface of the dura mater, near the longitudinal sinus.
1021. A portion of the pia mater with its vessels ossified; and adhering to the dura mater.
1022. A portion of pia mater with its vessels ossified.
1023. Arteries of the pia mater ossified.
1024. A portion of dura mater having scrofulous excrescences on both its surfaces, but especially on the external.
1025. Dura mater with a fungous excrescence upon its external surface, and a similar production on its inner surface, with a portion of the brain adhering to it.
1026. An excrescence formed on the inner surface of the dura mater.
1027. A tumour formed on the lower edge of the falciform process of the dura mater.

3. *Disease in the Substance of the Brain.*

1028. A firm coagulum of blood which was extravasated into the two lateral, the third, and fourth ventricles of the brain.
1029. A section of the brain, showing the cavity of an abscess in the right hemisphere of the cerebrum. There appears to be little or no loss of substance of the brain. [From a man who bled to death from an accidental division of the femoral artery. See preparation No. 353.]
1030. Part of the brain of a child which died of hydrocephalus; showing the septum lucidum stretched, and the two ventricles of the hemispheres so distended as to have made the corpus callosum and the cortical substance of the hemispheres one continued surface; the falx of the dura mater being absorbed at that part.

1031. A section of the cerebellum, to show an uncommon appearance in the medullary substance, marked by a bristle.

SERIES XXXIX. Diseases of the Spinal Chord, and Nerves.

1032. A portion of the medulla spinalis of the neck ; with a coagulum of blood pressing on it, which had been extravasated in consequence of a subluxation of the third cervical vertebra. The man had almost complete paralysis of all the [voluntary] parts below the neck ; having only a small degree of tremulous motion in one arm ; and the fæces and urine passed involuntarily. The actions of the vital organs were perfect. In this state the patient lived six weeks.
1033. Vertebrae of the back in a young subject, ulcerated ; two of the bodies being nearly destroyed. The medulla spinalis had been compressed in consequence of the incurvation. [A longitudinal section has been made, to show the state of the parts both above and below the part compressed.]
1034. A portion of medulla spinalis, from the dorsal region ; which had been compressed.
1035. A portion of medulla spinalis, which had been compressed near the origin of the cauda equina.
1036. A small portion of medulla spinalis in which the natural structure is indistinct.
1037. The carotid artery of a horse, on which, in the extraction of a large tumour from the neck, it was necessary to apply a ligature, when the par vagum was also included : the animal became paralysed and died the next evening. The carotid artery, which, while the animal was alive was about half an inch in diameter, was found contracted to less than a quarter, “ which,” Mr. Hunter remarks, “ must have arisen from the “ stimulus of death.” The preparation shows that part of the artery and the nerve which were included in the ligature. [See No. 437, which is part of the tumour.]
1038. A portion of nerve taken from the stump of the thigh of a man, after

- amputation. It shows the enlargement of the extremity of the nerve in consequence of inflammation.
1039. A section of a nerve from the same stump, showing the nervous fibres passing into the enlarged portion, and ramifying or divaricating in it.
1040. The other section of the same nerve, showing more distinctly the divarication of the nervous fibres.
1041. Another nerve from the same stump, in which the above circumstances are still more clearly observable. A bristle is placed behind the diverging nervous fibres.
1042. Longitudinal sections of the ischiadic nerve of a gentleman, part of which lay within the substance of a bloody tumour. The nerve was discoloured at this part, and the nervous fibres separated from each other.
1043. A section of a nerve from a man's leg, which had become much thickened in consequence of repeated inflammations. The nerve itself is much increased in size, but still the nervous fibres may be traced unaltered; which proves that the thickening has taken place in the uniting substance only. [See Nos. 64 and 65, from the same individual.]
1044. Another section of the same nerve.

SERIES XL. Diseases of the Eye.

1045. The optic nerves of a person who had a gutta serena in one eye. The nerve of the affected side is much wasted. [See also No. 680, showing the same circumstance.]
1046. A diseased human eye, which was filled with fluid. The retina has collapsed, so as to run in a straight line from the optic nerve to the crystalline lens.
1047. A human eye laid open, to show the retina collapsed, and adhering to the iris.
1048. The eye of a lady, which inflamed, suppurated, and burst; in consequence of which, the humours were lost, and the coats afterwards contracted.
1049. An eye of a blind man, where the retina was become bony in many places. [The sclerotic and choroid coats are laid open, and appear to be in a natural state.]
1050. "A diseased eye and eye-lid." [The eye-ball is adherent to a membrane

similar to the tunica conjunctiva, but thicker : it is laid open behind, and part of the retina is exposed, but most of the contents appear to have been lost. Part of the optic nerve has been preserved. This preparation is quite unintelligible without its history ; and it is almost impossible to guess at the nature of the disease or accident which has produced such a singular state of the parts.]

- 1051. A cataract, extracted by Baron Wenzel.
- 1052. Two cataracts, removed from the eyes of a lady.
- 1053. The eye of a deer, from which Mr. Hunter extracted the crystalline lens.
- 1054. The other eye of the same animal, showing the retina collapsed.
- 1055. A section of the eye of an ox, affected with dropsy.

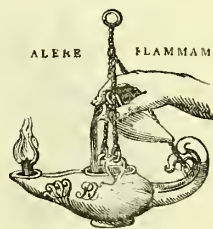
SERIES XLI. Diseases of the Gums and Teeth.

- 1056. A portion of the lower jaw, to show a diseased gum. [viz. a gum-boil.]
- 1057. A portion of the upper jaw, in which there is a small elevated point on the gum, marking the situation of a gum-boil which had healed.
- 1058. An exostosis or bony excrescence from the alveoli of the upper jaw of a lady. It was pinched off. The point of its attachment is marked by a bristle.
- 1059. A molaris of the lower jaw that had been formed in the gum ; being completely out of the jaw. It was loose, therefore it was drawn, and proved to be a tooth not fully grown.
- 1060. A section of a bicuspid tooth considerably decayed. The decayed part is distinguished by its colour. The disease had not yet extended to the cavity : the latter is marked by red injection.
- 1061. A section of a decayed molar tooth, in which the disease had extended quite into the cavity.
- 1062. The stump of a decayed tooth, on the end of which is seen the pulp.
- 1063. A molar tooth which was extracted on account of incipient disease in it. One of the fangs is broken, and the pulp which was brought away along with it, is seen hanging out of the broken end.
- 1064. An excrescence from the fang of a decayed tooth.
- 1065. A section of a decayed tooth with a small fungus arising from its cavity.
- 1066. The stump of a tooth to show a fungus growing from its periosteum.

SERIES XLII. Diseases of the Air-Passages, and Lungs.

1067. The tongue, larynx, and pharynx, with the external parts; from a man in whom there had been a large wound of the throat, between the os hyoides and thyroid cartilage, which did not unite; but an opening remains which exposes the epiglottis. [The beard has grown into the aperture as far as the edge of the cicatrix.]
1068. The trachea of a child which died of the croup, laid open to show a dense lining of coagulated lymph.
1069. A small portion of a ramified coagulum coughed up from the lungs. [Similar to No. 80, and probably from the same patient.]
1070. The larynx of a person who died of a putrid sore-throat. [The larynx is covered with a thick layer of coagulated lymph. The thyroid gland is much enlarged; though apparently unconnected with the cause of death.]
1071. The larynx laid open, to show ulceration of its inner surface.
1072. The larynx showing ulceration of the tonsils, epiglottis, and sacculi laryngis; with thickening of the glottis.
1073. The trachea laid open, to show a cauliflower-like excrescence in the situation of the rimula glottidis. [The thyroid gland is in a state of considerable enlargement.]
1074. A portion of the human lungs with large cells on the external surface which were the seat of dropsy.
1075. A portion of lung formed into a solid mass, with an ulcer in its substance.
1076. A portion of the lung of an infant, in which air had escaped into large vesicles beneath the pleura pulmonalis at the edge of the lung.
1077. A small portion of the lung of a negro, to show an aneurismal enlargement of the air-cells near its surface. The lungs were rendered hard by calcareous concretions in many parts of them.
1078. Another portion of the same lung.
1079. A similar preparation; from the same individual.
1080. A similar preparation; from the same individual.
1081. A similar preparation; from the same individual.

1082. A portion of lung, to show an immense number of small scrofulous tubercles throughout its substance.
1083. A section of a tumour containing a quantity of gritty calcareous deposit, which was formed in the substance of the lung of a bullock. There were several tumours of the same kind.
1084. A portion of the lung of an ox, singularly tuberculated. The whole lung of one side was in this state. A part had gone into suppuration, and some of the tubercles contained a glairy matter of the colour of pus.
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CATALOGUE
OF
THE HUNTERIAN COLLECTION
IN
THE MUSEUM
OF
THE ROYAL COLLEGE OF SURGEONS
IN LONDON.

PART II.
COMPREHENDING
THE PATHOLOGICAL PREPARATIONS IN A DRIED STATE.



LONDON:
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1830.

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C A T A L O G U E.

ILLUSTRATIONS OF THE ACTIONS OF RESTORATION AND OF DISEASE.

SERIES I. Fractures of Bone.

1. *Fissures of the Skull.*

- No. 1. A SKULL* in which there are several fissures which had been of considerable standing; for although they were not united, yet the sharp edges were rounded off by being absorbed. They seem to have had little regard to sutures; running across and alongside of them. The principal fissure extends from the fore part of the head to near the back, passing from the os frontis through the parietal bone contiguous to the sagittal suture, which is nearly obliterated. There are several other fissures in the right and left parietal, and occipital bones.
2. A calvaria fractured with depression. [The fracture is in the situation of the junction of the coronal and sagittal sutures, and extends a little way in the direction of the latter, but has wandered into the right parietal bone, the sagittal suture being almost wholly obliterated. The skull has been trephined in two places, in the line of the coronal suture; in one of which the depression appears to have existed.]

* To avoid repetition, all the specimens are presumed to be human that are not otherwise expressed.

2. *Fractures united.*

3. A section of a skull, showing the ossa nasi united with some displacement, after fracture.
4. A rib [the second, of the right side,] which has been fractured transversely, and united.
5. A lower or false rib, united after a fracture.
6. A similar specimen.
7. A rib of a quadruped, [apparently an ox,] which has been extensively fractured, and is united by firm bony union.
8. A similar specimen. [The rib has been fractured transversely, and united by a more luxuriant bony deposit.]
9. A similar specimen. [Apparently from a hog.]
10. Part of the left scapula of an ostrich, which has been fractured and united.
11. The first rib, from the left side of an ostrich, which has been fractured and united.
12. The second rib, from the left side of an ostrich, showing the same circumstance.
13. The third rib, from the left side of an ostrich, similarly circumstanced.
14. The seventh rib, from the left side of an ostrich, which had been fractured and united.
15. The eighth rib, from the right side of an ostrich, in a similar state.
16. The cartilage of a false rib, [apparently from a horse,] which has been fractured in several places, and united by bony union. The cartilage itself has become ossified.
17. A clavicle, from the right side, united after fracture near its middle.
18. A clavicle, from the right side, united after fracture ; but with greater displacement of the broken extremities.
19. A clavicle, from the left side, whose outer extremity is considerably depressed in consequence of fracture. The broken extremities have been united at some distance from each other.
20. The bones composing the left shoulder-joint. [There has, apparently, been a fracture of the greater tubercle of the head of the humerus ; and the portion displaced has been united, at some distance from its natural situation, by bony deposit.]

21. A humerus, in which there has been a fracture of the neck, with flattening and displacement of the head.
22. A humerus, having a similar fracture and displacement of the upper part; and another fracture below its middle.
23. A humerus, the head of which has been depressed, in consequence of a fracture at, and below, the neck of the bone.
24. A humerus, which appears to have been fractured at its neck. A bony process projects from the united part.
25. A humerus, which had been fractured near its middle, united.
26. A similar specimen, in which a large splinter has been detached and displaced, but now firmly united, apparently with its medullary canal outwards.
27. A humerus, which had been fractured near its lower extremity. The broken ends have been very well set, and firmly united, most probably in consequence of the fracture being very simple.
28. An os humeri which had been fractured in two places near the elbow, either at the same, or at different times. The three portions of the bone take different directions, but are firmly united, and with little deformity.
 [In Nos. 27 and 28 a depression, denoting the former situation of the medullary cavity, is apparent in the anterior part of the lower portion of each bone.]
29. A radius, which had been fractured near its middle, united.
30. A similar specimen.
31. The bones of a fore-arm, in which the radius has been fractured near the wrist; where, as is usual in such cases, it has caused distortion.
32. The os humeri of a turkey, which has been much splintered; but is united, with great deformity.
33. The os humeri of a turkey, which has been fractured. The broken extremities of the bone were about an inch distant from each other, probably in consequence of the drooping of the wing. They are now firmly united by a dense extended callus.
34. An os humeri of a bird, [apparently the domestic fowl,] which has been fractured, and is united in much the same manner as the preceding specimen, but with greater contraction or shortening.
35. The pelvis of a [quadruped, apparently a fallow deer,] which has been

severely fractured in several parts, and partially united by granulations of bone, with some distortion.

36. A femur, fractured near its upper extremity, which has been united better than is commonly the case in fractures of this part. [That considerable injury had been sustained by the parts within the capsular ligament, is evident from the state of the head of the bone, which is somewhat depressed. Ossific matter has been deposited on the superior part of the neck, which coming in contact with the brim of the acetabulum, in some measure compensated for the depressed state of the head of the bone.]
37. A femur, in which there have been two fractures; one at its upper extremity, where the head, neck, and both trochanters have been detached, and driven downwards behind the body or shaft of the bone, and are firmly united to the part occupied by the linea aspera. The other fracture has taken place near the middle of the femur, in which there is a remarkable singularity: viz. a large splinter has been detached from all the surrounding parts, and turned so far round as to throw its external surface towards the medullary canal, and cause its internal reticular surface to present towards the muscles. All the parts are firmly united.
38. A femur, in which a great part of the shaft of the bone has been broken into huge splinters; all of which are very firmly united together, but with considerable distortion. [The lower portions are situate behind the upper.]
39. A femur which has been fractured near its middle. The broken extremities overlap each other, but are very firmly united, though with much deformity. [The lower portion is also situated behind the upper, as in the preceding specimen.]
40. A femur, the shaft of which is small and dense, and has a greater curve than is usual. [It has been fractured, and united with the lower part drawn up in front of the upper portion of the bone.]
41. A femur, which had been fractured near its middle, and the extremities had ridden considerably over each other. The axes of the two portions not being in the same line, one end of the bone is, of course, not so smoothly united as the other. [In this specimen the lower portion is situate behind the upper.]

42. A transverse section of a fractured femur. The broken ends having united laterally, the medullary canal, in consequence, is not filled up by the callus at the point of union.
43. A portion of tibia, showing a fracture near its middle, which has been firmly united without much distortion.
44. A tibia and fibula which have been fractured; the tibia near the lower, the fibula near the upper extremity, as is generally the case. The fractures have been well united.
45. A similar specimen. [Both the tibia and fibula have been splintered, but the splinters are firmly united; and must, from their position, have afforded considerable support to the limb, during its progress towards recovery.]
46. Two longitudinal sections of a tibia which had suffered a compound fracture near its lower extremity. [No. 66 Pathological Preparation in Spirit, is a section removed from between these two portions: and it is there stated that "the sore never healed, nor could the man bear any weight on the limb, in consequence of the two portions of the bone having united by so small a surface. The leg was amputated on that account."]
47. A fibula, with an unusually oblique or extended fracture, towards its upper extremity.
48. A femur of a quadruped, [apparently a sheep,] which has been fractured, and its union attended with extensive deposition of interposed and surrounding bony matter.
49. A section of the thigh-bone of a fowl, which has been fractured; showing the obliteration of the medullary canal at the united part, and extensive interposed bony matter.
50. Two femora of birds, which have been fractured, and united with great reduction of their length; and in one instance, with much deformity.
[It may be remarked, that the bones of birds are almost always united by a luxuriant callus; and the reason is obviously on account of the greater activity or restlessness of this class, when compared with quadrupeds.]
51. Two tibiae of birds, that have been fractured; but are united with much less deformity than the preceding specimens.
52. A portion of the horn of a fallow (?) deer, in which a fracture of one of the antlers had occurred during its growing state, but has been firmly united.

53. A horn of a fallow-deer, in which the beam has apparently been fractured and united; but the injury has occasioned a diminutive and deformed growth.
54. A single valve of the shell of a fresh-water muscle [*Anodon anatinus*], in which a fracture has been repaired by a deposit of nacre on its inside.

3. *Fractures ununited.*

55. A portion of a fractured rib, where the extravasated blood between the broken surfaces had died, and was absorbed. The adhesive inflammation in the surrounding parts was forming the union.
56. A scapula with a fracture, or a partial division, near its spine. The effects of the ossific inflammation are observable on the divided edges.
57. The scapula of a lion, fractured transversely; in which the ossific inflammation had begun.
58. An ulna, fractured near its middle, and not united; the fractured ends forming an artificial joint. [A section of the bone has been made, which shows that the medullary canal is obliterated at this part, in consequence of the deposit of ossific matter.]
59. A femur, fractured near its upper extremity; in which the process of union had begun to take place.
60. A femur, fractured obliquely below the great trochanter. A part of the lower portion had become dead, and was in progress for exfoliation; and around this part an abscess formed, which has been circumscribed by luxuriant bony deposit.
61. A tibia, fractured at its upper extremity; with fissures which communicated with the knee-joint. The fibula remains unbroken.
62. A tibia, fractured towards its lower end: the fibula is, as usual, fractured near its upper extremity.
63. A tibia and fibula, with simple fracture near their middle. "The surfaces of contact of the two broken bones had become smooth, fitting them for motion: this probably arose in some measure from want of attention in keeping the bones at rest, for they are placed nearly at right angles; which shows the want [or absence] of surgical assistance." [The fibula, which had evidently been in the same condition that the tibia still

- retains, had become united, and served the purpose of a splint to the tibia, in which some slight efforts towards union had begun to take place.]
64. A portion of a tibia, which has been fractured near its middle, and has re-united by a small surface, apparently under circumstances similar to the preceding specimen.
 65. A section of a tibia from a case of compound fracture ; in which ossification has taken place in the surrounding periosteum.
 66. The humerus of a small quadruped, [about the size of a hare,] which had been fractured. Although much bony matter has been deposited on the broken ends, union has not taken place ; probably in consequence of the frequent motion of the parts on each other.
 67. The humerus of a bird, [apparently a vulture,] under somewhat similar circumstances.
 68. The right humerus of an ostrich, which having been fractured, and union not taking place, an imperfect joint has been formed. [A very large deposit of ossific matter has taken place on the broken ends of the bone, for the purpose of union ; but the intention has been frustrated, without doubt, by the frequent motion of the parts.]
 69. A human patella, which has been fractured transversely, near its middle, and united by ligament.
 70. The right femur and tibia of the Great Speckled Diver, or Loon of Pennant, showing a remarkably long process from the head of the tibia, answering the purpose of a patella, and affording a great extent of origin to the flexor muscles of the tarsus. [This preparation is retained here, although it does not exhibit any morbid alteration of structure, because it was used by Mr. Hunter as an illustration in his lecture on fractured patella and olecranon.]
 71. An apparatus of steel springs attached to a femur and tibia, to explain how muscles adapt themselves to the shortest distances, where ligamentous union has taken place, in cases of fractured patella.
 72. An analogous apparatus applied to a humerus and ulna, to demonstrate the same circumstances in fractures of the olecranon.

SERIES II. Ossific Inflammation.

1. *Inflammation of the Surface of Bone.*

73. A portion of the left femur of a young subject, which had been fractured below its middle: considerable inflammation had attacked the bone and surrounding parts beyond the fracture; and had continued so long as to have produced ossification in the periosteum, which is easily distinguishable from the original bone. The bone is divided longitudinally.
74. A right femur, showing the effects of inflammation on its surface: viz. traces of excessive vascular action, and ossification of the periosteum.
75. The left femur of the same individual, in a similar state.
76. A tibia, the periosteum of which has been affected by ossific inflammation, producing appearances on the surface similar to those of the preceding specimen.
77. A tibia, along the posterior surface of which is a crust of newly formed bone, arising from inflammation of the periosteum. On the anterior part it appears to have been affected by superficial ulceration.
78. The lower part of a tibia, whose surface exhibits traces of inflammation, viz. ossification, and enlargement of the vessels, of the periosteum.
79. The pelvis of a lion, which had been considerably affected by ossific inflammation; the original bone being in many parts entirely covered by the additional or newly formed bone.
80. A longitudinal section of the left femur of the same animal, in a similar state.
81. A longitudinal section of the right femur of the same animal, in a similar state. [This femur had been steeped in an acid, in order to make the section without injury to the delicate texture of the newly formed bone. No. 193 Pathological Preparation in Spirit is the counterpart of this specimen.]
82. A patella, from the same animal, in a similar state.
83. The left tibia of the same animal, in a similar state.
84. The right tibia and fibula of the same animal, similarly affected.
85. The right os calcis of the same animal, in a similar state.
86. The left os calcis of the same animal.

87. Part of the left scapula of a very large lion. The acromion is greatly increased in size by additional ossific matter, in consequence of inflammation.
88. The left ulna of the same lion, in a similar state.
89. The right ulna of the same lion, thickened by deposition of bone on its surface, from superficial inflammation.
90. The right femur of the same lion, remarkably enlarged in consequence of inflammation. The newly formed bone is most luxuriant at the posterior part, where it has somewhat of a laminated appearance.
91. A human (?) patella, from the surface of which, bony spicula extend in the direction of the fibres of the ligamentum patellæ.
92. A patella of a quadruped, [apparently a lion,] which has been affected in a similar manner.
93. Tarsal bones of a lion, from which newly formed bone has shot out into processes which might have produced ankylosis by means of the surrounding parts. Also one of the caudal vertebræ in a similar state.
94. Some phalanges of the toes of a very large seal, affected by ossific inflammation.
95. The coffin-bone, or last phalanx of the foot of a horse; where, in consequence of repeated inflammations, greasy heels, &c., the ossific inflammation had caused considerable extension of its quarters.
96. A portion of ossific matter, from the foot of a horse; deposited in consequence of ossific inflammation.

2. Swelling of Bone, from Inflammation of the Substance.

a. Of the Skull.

97. A section of a calvaria, with unusual thickening of the parietal bones. The sutures, even the frontal, are very distinct externally, but on the internal surface there is scarcely a trace of their existence remaining. [It is heavy, and dense in structure, which seems to be more like the effect of simple inflammation than scrofulous thickening.]
98. A vertical section of the calvaria [said to be] of a young person, which is considerably thickened in its substance, especially in the centres of the bones; most probably arising from a scrofulous disposition.

99. Part of a skull, of which the os frontis is very dense and much thickened ; with irregular depressions and bony protuberances internally.
100. A calvaria, where inflammation has caused an almost entire obliteration of the sutures. [It is very much thickened in some parts, viz. at the frontal and parietal protuberances, and thin in others : it has also a singular os triquetrum in the sagittal suture.]
101. A vertical section of the calvaria of an adult. The parietal bone is much thickened near its centre : the os frontis is remarkably so. [This skull must have been of unusually small dimensions. There is no trace remaining of the coronal suture.]
102. A portion of an os frontis, and a portion of bone removed by the crown of a trepan, from skulls of considerable thickness. [They are apparently from different individuals, and are not so remarkable as some of the preceding.]
103. A vertical section of a skull with thickened parietes, especially the os frontis.
104. A calvaria, wherein the sutures are obliterated, and the parietes thickened and inclining to a spongy texture. The outer surface has a remarkable porous aspect, and the inner one is universally grooved and furrowed by vascular action.
105. A similar specimen, but affected in a still greater degree.
106. An adult skull, of an extraordinary friable and spongy texture ; and measuring, in almost every part, an inch and a quarter in thickness. It was found in digging a grave in Stepney churchyard, and was presented to Mr. Hunter by Mr. Patten, Surgeon, of Ratcliff-cross. [The impressions of the blood-vessels on its inner surface are worthy of remark, on account of their great depth.]

b. Of Cylindrical Bones.

107. The lower end of an os humeri, much thickened in consequence of inflammation.
108. A femur, to show swelling of its substance. On its surface may be observed the impressions of blood-vessels.
109. A similar specimen.
110. A femur, thickened towards its lower extremity, from inflammation.

111. The lower part of a femur, much thickened, and having impressions of blood-vessels on its surface, similar to the preceding specimens.
112. A femur considerably thickened at its lower end. It is much curved, and convex anteriorly.
113. A femur, the lower part of which has been in an inflamed state, and is partially thickened and incrustated by ossific matter.
114. The lower end of a femur, very considerably thickened by the deposition of bony matter on its surface. [The section shows the proportion of the bony addition.]
115. A tibia thickened by ossific inflammation. [This specimen is somewhat curved, and is remarkably heavy.]
116. A right tibia, which is thickened; and appears, from the numerous perforations of blood-vessels, to have been in a state of high inflammation.
117. The left tibia, from the same individual, similarly diseased.
118. A tibia thickened at its middle; with a very irregular surface.
119. A portion of a tibia considerably thickened; with cribriform perforations by the superficial blood-vessels.
120. A tibia and fibula in a similar state.
121. A tibia and fibula similarly diseased, but in a greater degree.
122. A fibula thickened towards its lower part.
123. A fibula thickened, and the surface next the tibia very irregular.
124. A similar specimen, but with a greater degree of thickening.
125. A fibula, which is thickened towards its middle, in consequence of the ossific inflammation.
126. A fibula thickened; and with an extremely irregular surface.
127. The right humerus of a young ostrich, thickened and distorted.
128. The left humerus of the same bird, affected in a greater degree.
129. The right humerus of a young ostrich, similarly affected, but in a still greater degree.
130. Two of the carpal bones of a large bird, [probably an eagle,] in a similar state.
131. A young branch of a fir, which from accidental injury is under circumstances similar to thickening of bone in consequence of inflammation.

SERIES III. Ulceration of Bone.

1. *Absorption and Ulceration of Bone from Pressure.*

132. The skull of an aged person, to show that the alveolar processes have been completely absorbed after the loss of all the teeth.
133. The anterior portion of the lower jaw of a boar, in which the tusks had attained an unusual length, in consequence of their not having been properly opposed by the tusks in the upper jaw, and therefore not worn away as usual by attrition; and consequently have turned inwards, and pierced the jaw on each side, and passing obliquely forwards, re-entered the mouth, after having completed nearly a gyration and a half.
134. The inter-maxillary bones of a rabbit (r), in which the left incisor has attained an unusual length, from the same cause as the preceding specimen; and has penetrated into, or formed a groove in the inter maxillary bone of the opposite side.
135. A portion of the cranium of a giddy sheep, in which absorption of the bone, in several places, has been produced by pressure from hydatids in the cerebrum.
136. The first bone of a sternum, ulcerated in consequence of the pressure of an aneurism.
137. The second bone of the sternum, ulcerated from the same cause.
138. A clavicle much ulcerated: [probably from the same cause.]
139. An os ilium, ulcerated in consequence of the pressure of matter from a lumbar abscess.
140. The upper part of a femur, ulcerated: [apparently from the same cause, and probably from the same individual as the preceding specimen.]
141. The upper extremity of a femur, to show the effects of pressure [probably from abscess,] which had produced absorption of its surface. The medullary cavity is much diminished, in consequence of the thickening of the parietes of the bone.
142. A femur, to show that absorption has taken place towards its lower extremity: [probably in consequence of abscess, or of aneurism; but not to any great extent.]

143. The lower part of a femur and upper part of the tibia, of the right side, showing absorption of the bones from the pressure of a poplitæal aneurism.
144. The lower portion of the left femur of a man, the posterior surface of which has been absorbed in consequence of the pressure of a poplitæal aneurism. On the circumference of the part pressed upon, ossific matter has been thrown out from the periosteum. [See Pathological Preparation No. 369 Dry, for the continuation of the history of this specimen. The patient died from mortification of the foot.]
145. The lower part of a femur, ulcerated, from the same cause; and, from its lightness, appears to have had much of its earthy matter absorbed.
146. The lower portion of a femur, with an excavation, about two inches in diameter, at its posterior part, in consequence of the pressure of a poplitæal aneurism.

2. Ulceration in consequence of Disease in the Bone.

147. A portion of the skull of a French printer, where the bone was absorbed in many places in consequence of the formation of scrofulous tumours on both the external and internal surfaces, and in its substance. [See No. 610 Pathological Preparation in Spirit, which is from the same individual.]
148. An apparently female skull, from which a vertical section has been removed, showing the progress of a similar form of disease to a very advanced state; having destroyed the greater part of the squamous portion of the left temporal bone, and the adjoining parts of the sphænoid and parietal bones. A section of the right parietal and occipital bones has been made, to show two small cavities on the inside, formed by ulceration acting from within outwards.
149. A calvaria, very extensively ulcerated on its internal surface; and in which the diplœ has been almost entirely removed. [A large circular portion of the inner table has been destroyed, leaving only a thin film of the outer table, but there is scarcely any appearance of disease on the external surface of the skull. Whether the affection were considered venereal or not, there is no record. It has every appearance of the absorption having been produced by pressure from within.]

150. The calvaria of a gentleman, to show ulceration from pressure arising from disease in the bone. The disease appears to have originated on the inside, and in several places it has extended through both tables, to the external surface of the skull. "On opening the body many other bones were found in the same condition; where, in place of the bone that was removed, there was found a curdy substance."
151. A portion of rib from the same individual, ulcerated from the same cause. The ulceration had begun in the centre, and made its progress through the two sides; in one of which it has left a large opening.
152. The lower part of the humerus of the same individual, which was so far destroyed by ulceration as to break, just before death, by the motion of the arm. There being no disposition for the ossific process on the outside, was the cause of the bone giving way.
153. The upper portion of the right femur of a dignitary of the Church, which broke while turning in bed, of which he soon died; and on examination there was found a curdy matter with recently extravasated blood. Ulceration had begun in the centre of the bone, and continued until it was only a thin shell, and in some places it had gone quite through. There was very little disposition for the ossific process on the outside.
154. A section of the humerus of an ox, which contained in its medullary cavity an incysted, glossy, hydatid-like tumour. [No. 527 Pathological Preparation in Spirit is the counterpart of this bone, containing the cyst.]

3. Ulceration on the Surface of Bone.

155. A skull, on the surface of which are several superficial ulcerations. The bones are of considerable density, with scarcely any appearance of diplœe.
156. A calvaria, ulcerated in circular spots. The ulceration has in one part penetrated through both tables, leaving an aperture much resembling that produced by the crown of a trephine, but smaller.
157. A tibia, to show absorption of its surface in consequence of ulceration; accompanied by inflammation and ossification of the periosteum.

4. Ulceration in the Substance of Bone.

158. A natural skeleton of the trunk of a child, showing ulceration of the bodies

- of three dorsal vertebræ [with a slight degree of curvature forwards, in consequence].
159. A natural skeleton of the trunk of an adult female with a distorted spine, in consequence of disease in some of the lower dorsal vertebræ. The bodies of the last four dorsal and first lumbar vertebræ are destroyed.
 160. Three lumbar vertebræ, ulcerated.
 161. The lumbar vertebræ and sacrum of a young subject, ulcerated.
 162. The last two lumbar vertebræ, and the upper part of the sacrum, ulcerated.
 163. A similar specimen.
 164. The last two lumbar vertebræ and sacrum of a young person. Ulceration has extended deeply into the substance of the latter bone.
 165. The substance of the ulna and radius ulcerated.
 166. The head of a tibia, in which a considerable part of its substance has been destroyed by ulceration. The joint of the knee has participated in the disease.
 167. A very similar specimen, in which a great part of the substance of the bone has been removed by ulceration, leaving a thin and very light external shell. [The disease has attacked the head or stump of the tibia after amputation.]
 168. A portion of a tibia, at the lower part of which are several sinuses, some of which communicated with the joint. [Probably the effects of gunshot.]
 169. A portion of a tibia, the lower extremity of which has been entirely destroyed.
 170. A tibia and fibula, which exhibit a variety of diseases incident to bone : viz. ulceration destroying the original bone, by which means a considerable part of the fibula has been removed ; and ossific inflammation forming new bone which has produced ankylosis between the tibia and fibula. These effects were produced by the extravasation of blood in this part.
 171. A fibula thickened and ulcerated near its middle.

5. *Abscess in Bone.*

Spina ventosa.

172. The lower extremity of a femur, distorted and enlarged into a considerable cavity : [probably in consequence of abscess.]

173. The head of a tibia, [apparently from the same limb,] in a similar state.
174. The lower part of a femur and upper part of the tibia. In the centre of the head of the tibia an abscess had formed. While ulceration was enlarging the cavity within, ossific matter was being deposited on the outside; in consequence of which the circumference of the bone became of considerable size; ulceration, however, had made an opening through the bone for the exit of the matter.
175. The upper portion of a tibia, enlarged, and excavated by a considerable abscess in its substance.
176. The upper portion of a tibia, which is much enlarged in consequence of inflammation, and probably abscess.
177. A metatarsal bone of a sheep (?), in which was an abscess, the parietes of which are distended or enlarged by the deposit of ossific matter externally, in proportion to the increase of the cavity within; forming what is usually termed a Spina ventosa.
178. A metatarsal bone of a sheep, the cavity of which has been enlarged, and a considerable part of the substance destroyed by ulceration and abscess, apparently in consequence of fracture, or necrosis, or both.
179. The right side of the lower jaw of a sheep, the anterior part of which is dilated into a bony cyst as large as the egg of a goose. [Its parietes are very thin, and without doubt contained fluid; probably hydatids.]
180. The lower jaw of a small quadruped, [apparently a Virginian opossum,] the anterior half of the left side of which is occupied by a hollow sponge-like bony tumour, induced by a diseased state of the teeth.

SERIES IV. Diseases of Joints.

Ulceration of the Articular extremities of Bones.

181. A scapula and clavicle, showing disease of the joint between the latter bone and the acromion. The clavicle of the opposite side is also preserved, showing a similar disease of its outer extremity. [Probably an arthritic affection.]
182. A scapula, the glenoid cavity of which is ulcerated and altered in form.

183. A diseased shoulder-joint, [in which the articulating surfaces of the scapula and humerus have been absorbed.]
184. A diseased shoulder-joint, [in which the glenoid cavity of the scapula and the head of the humerus have entirely lost their natural form, in consequence of ulceration ; and the motion of the joint had been very much limited in consequence of bony deposit.]
185. A humerus, the head of which is much reduced by ulceration.
186. The bones composing the elbow-joint, greatly enlarged in consequence of ossific deposit ; and ulcerated, but without having entirely destroyed the articulating surfaces. The lower extremities of the radius and ulna are similarly affected. [Like No. 181, the disease seems to partake more of the arthritic than the strumous character.]
187. The bones composing the elbow-joint, from which the articular surfaces have been entirely removed by ulceration.
188. The bones composing the elbow-joint, of which the articulating surfaces have been destroyed by ulceration.
189. The bones composing the elbow-joint, the articulating surfaces of which have been considerably eroded by ulceration.
190. The bones composing the elbow-joint of a young subject, considerably affected by ulceration, [probably of the scrofulous kind.]
191. An ulna, the upper articulating surface of which is much indented, and rendered irregular by the ulcerative process.
192. Part of an ulna which is ulcerated at the elbow-joint, [subsequent to fracture of the olecranon, which is partially united.]
193. An ulna, enlarged and ulcerated at the elbow-joint.
194. A radius, whose upper extremity is much diminished and distorted, in consequence of accident or disease at the elbow. [Probably, but not certainly, from the same limb as the preceding specimen.]
195. A radius, ulcerated on its lower articulating surface, and its extremity considerably enlarged by ossific deposit.
196. An os innominatum, in which the acetabulum is greatly enlarged, or extended, by the formation of a bony case surrounding its margin, in consequence of disease in the joint.
197. The bones composing the hip-joint, which have been affected in the follow-

ing manner:—The acetabulum has been the seat of ulceration, which has enlarged its cavity, destroyed part of its circumference, and opened a passage through its centre into the pelvis. The neck of the femur has been shortened; ossific matter has been deposited and accumulated upon it, to give support to the ilium as the head sank deeper into the articular cavity; and a small process of dense bone has arisen from the lower part of the neck of the femur, and passing into the obturator foramen, supports, like a hook or crutch, the margin of the acetabulum.

198. A hip-joint, in which the acetabulum is greatly enlarged in consequence of ulceration; and the head of the femur diminished in size from the same cause. There had also been psoas abscess, which has affected the inner surface of the os ilium.
199. A hip-joint, in which an abscess had formed, in consequence of which the acetabulum is enlarged, and the head of the femur diminished, as in the preceding specimen. [The abscess had extended within the pelvis beneath the iliacus internus muscle, or else from that situation had communicated with the joint, and become the cause of the disease in that part.]
200. A hip-joint, from a young subject, in which the acetabulum is ulcerated, and has ossific growths projecting into its cavity. The head of the femur is almost entirely destroyed by ulceration.
201. A hip-joint, in which the acetabulum is widened, and its margin destroyed by ulceration. The cartilaginous surface of the head of the femur has also been destroyed by ulceration.
202. A hip-joint, in which considerable progress had been made towards ankylosis, in consequence of bony deposit in the cavity of the acetabulum, and on the head and neck of the femur.
203. The upper portion of a femur, showing alteration in the form of the head and neck, in consequence of disease in the hip-joint.
204. The upper portion of a femur, whose head is much flattened in consequence of disease in the hip-joint.
205. A similar specimen, but the alteration in form still more remarkable.
206. The upper portion of a femur, the head and neck of which are greatly attenuated, in consequence of disease in the hip-joint; and part of the great trochanter is destroyed by ulceration.

- 207. The condyles of a femur, ulcerated, and much altered in form, in consequence of disease in the knee-joint.
- 208. The lower extremity of a femur, showing the effects of ulceration on one of the condyles.
- 209. The extremities of the femur and tibia composing the knee-joint, which have undergone considerable change of form in consequence of ulceration.
- 210. The lower extremity of a femur, and upper part of a tibia, whose articulating surfaces have been destroyed by ulceration.
- 211. A knee-joint, in which a still more remarkable change had taken place in the articulating surfaces of the femur, patella, and tibia, in consequence of abrasion. [It is probable that the bones had been previously dislocated.]
- 212. Two patellæ, whose articulating surfaces have been destroyed by ulceration.
- 213. The head of a tibia, whose articulating surfaces have been destroyed by ulceration.
- 214. A very similar specimen. The ulceration has extended deeply into the substance of the bone.
- 215. The head of a tibia separated from the shaft by ulceration, which has extended into, or originated from, the joint. [Probably a scrofulous affection.]
- 216. The lower extremity of a tibia, whose articulating surface has been destroyed by ulceration in the ankle-joint.
- 217. The upper part of a fibula, in a state of inflammation and ulceration.
- 218. A fibula, the lower extremity of which appears to have been involved in an abscess.
- 219. An astragalus, slightly affected by ulceration.
- 220. A calcaneum, much enlarged, and its substance furrowed and perforated, by the processes of inflammation and ulceration.

SERIES V. Ossific Granulation.

1. *Granulations from the Skull.*

- 221. A calvaria, which has been very extensively fractured; the fissure extending from the right parietal bone to the left, across the centre of the os frontis.

The trephine had been applied on both sides of the skull. The patient appears to have survived the injury many years. There are appearances of ossific granulations externally, in the line of the fracture, which have produced almost complete union: there are also a few granulations at the external margin of each aperture made by the trephine, which, however, have done very little towards repairing the loss of bone at those parts.

222. A calvaria, from the left parietal bone of which an exfoliation is supposed to have separated. [It appears rather to have been a portion removed in consequence of a fracture which occurred a considerable time before the death of the patient. The margins of the apertures present externally some slight appearances of ossific granulations, similar to the preceding specimen.]
223. A section of a cranium, from which a large portion has been separated, or removed by absorption, from the posterior part of the right parietal bone, a considerable time before the death of the patient. [The ossific granulations have partially, but very imperfectly, supplied the loss.]
224. The upper part of a cranium, from the left parietal bone of which a large portion has been separated, apparently in consequence of fracture, and supposed to have been removed by the trepan. On the specimen is a label inscribed "De la Cimetière de la Paroisse de St. André à Rouen : supprimée à la Revolution Française, 1792. J. Ford."
225. A calvaria, from which a portion of the os frontis had been detached. The space where the bone is deficient is closed by a very dense and firm membrane, from the insufficiency of ossific granulations to close the aperture.
226. A section of the skull of an ass (?), from which a circular portion has been detached, [either by disease or design,] and the place of which is partially filled up by ossific granulations from the margin.

2. *Granulations from Cylindrical Bones.*

227. Granulations on the divided extremities of the ulna and radius after amputation.
228. The stump of one of the phalanges of a finger granulating.
229. Granulations on the divided humerus of an eagle.

230. The stump of a femur after amputation, showing the ossification of the granulations, which had taken place during the time of healing.
231. Granulations from the stump of a tibia, after amputation very near to the knee-joint.
232. Granulations from the divided extremities of the tibia and fibula after amputation. Both the bones are exceedingly attenuated towards the lower extremity, and are probably from an ill-conditioned or sugar-loaf stump.
233. The upper extremities of two fibulæ, which were granulating after amputation very near the knee-joint.
234. The stump of a tarsal bone of a turkey, granulations from which have produced anchylosis between the osseous substitutes for tendons and the bone.
235. Granulations from the anterior surface of a tibia.
236. A tibia, with ossific granulations on its anterior surface.
237. A longitudinal section of a tibia, from the anterior surface of which granulations have sprung up, in consequence of a large ulcer.
238. A tibia, with ossific granulations on its anterior surface. It is also thickened.
239. A tibia, showing ossific granulations surrounding a superficial ulceration.
240. A similar specimen. The granulations are much more luxuriant, and the ulceration more extensive.
241. An oval zone of granulations, raised about the lower extremity of a tibia, on its inner side.
242. A similar specimen.
243. A tibia, extensively ulcerated at its lower part, thickened, and surrounded by ossific granulations.
244. The lower extremity of a tibia, on the anterior surface of which granulations had formed, but had become partially dead, and were exfoliating.
245. Luxuriant granulations on the surface of a fibula.
246. The lower extremity of a fibula, on the anterior surface of which has been a large ulcer. The bone is thickened, and exhibits numerous granulations.

3. Granulations uniting Compound Fractures.

247. The superior portion of a femur, in which there had been a compound fracture from a musket bullet, which remained after granulations had

- formed and ossified. The bullet was afterwards extracted, but the hole in which it was lodged is still seen in the newly formed bone.
248. A femur, from a case of compound fracture, partially united, but very much shortened and distorted.
249. A femur, from a case of compound fracture, partially united, with great deformity; and a large sequestrum separating from the upper portion of the bone.
250. A similar specimen. The fracture is very oblique, and apparently occurred in consequence of gun-shot: the fractured ends are much displaced; the pointed extremity of the upper portion having descended so low, that it probably entered the cavity of the knee-joint, and is marked out for exfoliation. A slight degree of union had taken place in some parts.
251. A section of a femur which had been fractured, showing a portion of the shaft become dead, and under the process of exfoliation. This part is surrounded by new bone.
252. A tibia and fibula, which have suffered compound fracture. The broken ends of the tibia having ridden considerably, induced the Surgeon to saw off a considerable part of the upper end. This operation probably deadened the bone at this part, and a large exfoliation of its whole diameter is seen taking place, which prevented the union of the bone by granulations, until the exfoliation was effected. While this process was going on in the tibia, an attempt at union was taking place in the fibula.
253. A tibia, from a case of compound fracture. The bone is firmly united, but with distortion.
254. The lower extremity of a tibia, from a case of compound fracture. The surface of the bone is covered with ossific granulations.
255. A metatarsal bone and phalanges of a toe, which have been fractured and united together by ossific granulations.

SERIES VI. Anchylosis.

1. *Lateral Anchylosis.*

“The first or lateral anchylosis is where bones are united by their sides, in consequence of ossific inflammation.”

- 256. The first and second ribs of the right side, firmly anchylosed laterally, [by a dense bony plate resembling the natural structure of the ribs, and remarkably smooth on the inner side.]
- 257. Two ribs, [apparently those of a sheep,] anchylosed laterally through nearly their whole extent.
- 258. The metacarpal bones of the middle and ring-finger united by lateral anchylosis.
- 259. Two metacarpal bones of a lion, showing similar union.
- 260. The transverse process on the left side of the last lumbar vertebra and the os sacrum, anchylosed.
- 261. A similar specimen, with anchylosis on the right side.
- 262. The right femur, firmly united to the ischium by a large process of bone from the little trochanter.
- 263. The remains of a tibia and fibula in a stump after amputation, anchylosed at their divided extremities. The bones are much reduced in size, and become exceedingly light.
- 264. The left tibia and fibula of a young lion (?), anchylosed laterally.
- 265. The tibia and fibula of a lion, united by lateral anchylosis throughout almost their whole extent.

2. *Anchylosis by Ossification of surrounding Parts.*

“The union of two bones constituting a joint, by means of the ossifying of the surrounding parts making no part of that joint; and which anchylosis is generally found in the vertebræ.”

- 266. Four cervical vertebræ, in the state of incipient anchylosis.
- 267. Two cervical vertebræ, anchylosed by ossific deposit on the anterior surface of their bodies.
- 268. Sections of two cervical vertebræ, anchylosed in a similar manner.
- 269. A spinal column, in which most of the vertebræ are partially united by lateral anchylosis. [Some of the ribs have been fractured and re-united.]
- 270. Several cervical vertebræ of a feline animal, anchylosed by means of a bony process extending from the spine of the vertebra dentata along the depression between the spinous and transverse processes of the right side.

271. Eight of the lower dorsal vertebræ of a lion, which were beginning to an-
chylose. The newly formed bone arising from the bodies of the vertebræ
may be seen shooting towards the adjoining vertebra, where it is meeting
similar bony processes.
272. Two dorsal vertebræ of a lion, firmly anchylosed anteriorly.
273. Six lower dorsal and first lumbar vertebræ, partially anchylosed, [by pro-
cesses of new bone projecting from the anterior edges of the adjoining
vertebræ, to obviate an increasing curvature forwards.]
274. Six dorsal vertebræ, in the state of firm lateral anchylosis.
275. The five lower dorsal vertebræ of a laterally incurvated spine, showing that
an additional support of new bone has been deposited on the sides of the
bodies, in the hollow of the curve ; forming an anchylosis.
276. Four dorsal vertebræ, anchylosed along the sides of their bodies.
277. Four dorsal vertebræ, anchylosed along the front of their bodies.
278. Two lumbar vertebræ, united by lateral anchylosis.
279. Three cervical vertebræ of an ostrich, anchylosed.
280. Two cervical vertebræ of the same bird, anchylosed in a similar manner.
281. Two lower cervical vertebræ of the same bird, anchylosed laterally, with
some distortion.
282. A dorsal vertebra of the same bird, with which the head of a rib that had
been fractured is anchylosed.
283. All the cervical and four dorsal vertebræ of a lion, firmly anchylosed.
284. The scapula and os humeri of a lion, showing anchylosis in progress, in
consequence of the formation of bony processes which pass from the
scapula towards the humerus, and from the humerus towards the scapula.
285. Two lumbar vertebræ of a white bear, anchylosed laterally.
286. Two lumbar vertebræ of a horse, anchylosed laterally.
287. Six dorsal vertebræ of a horse, anchylosed both by their bodies and spinous
processes.
288. A longitudinal section of five dorsal vertebræ of a horse, united by lateral
anchylosis.
289. A portion of the spine of a cartilaginous fish, [probably a large ray,]
showing anchylosis in progress, in consequence of a supposed fracture
of one of the vertebræ.

290. The vertebra dentata and third cervical vertebra, anchylosed by their oblique processes, on one side.
291. The vertebra dentata and third cervical vertebra, anchylosed both by their bodies and oblique processes.

3. *Anchylosis by means of the Ossification of the Capsular Ligament.*

292. Four lumbar vertebræ, anchylosed by means of the ossification of the capsular ligaments of the oblique processes.
293. Three dorsal vertebræ of an incurvated spine, united by the same means as the last specimen, and also by anchylosis of their transverse processes.
294. The last cervical, and eleven of the dorsal vertebræ, exceedingly distorted. The lower seven vertebræ, and a rib, are firmly anchylosed.
295. A portion of the spine, in which the vertebræ and corresponding ribs are united by anchylosis.
296. The right shoulder-joint of a feline animal, in which the capsular ligament and other surrounding parts have become ossified; but the articulating surfaces of the scapula and os humeri had not taken on the ossific process. [The inflammation has been apparently induced by a dislocation of the humerus.]
297. The left scapula and humerus of the same animal, in a similar state, but in a less degree than the preceding specimen.
298. The right humerus, ulna, and radius, of a large feline animal, [probably a lion,] in which the motion of the elbow-joint is limited, in consequence of partial ossification of the capsular ligament.
299. The left humerus and ulna of the same animal, in a similar state, but in a less degree.
300. The lower extremity of the left radius of a horse, anchylosed with three bones of the carpus; and the remaining carpal bones are anchylosed with those of the metacarpus.
301. The tarsal anchylosed with the metatarsal bones of the right hind-leg of a horse.
302. The metacarpal bone of the near fore-leg of an ox, firmly anchylosed with the first phalanges and sesamoid bones.

303. A tarsal and metatarsal bone, anchylosed apparently by the ossification of the capsular and lateral ligaments.

4. *Complete Anchylosis of Joints.*

a. *Anchylosis where there is but little Motion.*

304. A longitudinal section of the second and third cervical vertebræ, where union has taken place between the bodies, by means of the ossification of the intermediate substance, and also between the oblique processes.
305. A longitudinal section of the fourth and fifth cervical vertebræ, where union has taken place by means of ossific inflammation in the intermediate substance.
306. A large portion of a spinal column, much incurvated forwards; and the bodies of five dorsal vertebræ anchylosed.
307. Two lumbar vertebræ, anchylosed both by their articulating surfaces, and laterally.
308. The sacrum and left ilium, anchylosed.
309. The sacrum and ossa ilii, anchylosed by the whole surface of the sacro-iliac symphysis.

b. *Anchylosis where there is a Capsular Ligament.*

310. The condyles of the os occipitis anchylosed to the atlas.
311. An os humeri and ulna, anchylosed.
312. A humerus, ulna, and radius, firmly anchylosed at the elbow-joint.
313. The head of a femur, very firmly anchylosed to the whole surface of the acetabulum.
314. A similar specimen, but with more distortion, in consequence of the shortening of the neck of the femur.
315. A femur and tibia, united by anchylosis of their articulating surfaces. A strong ridge of bone has been formed in the popliteal space, for the purposes of support. There has been an oblique fracture of the tibia near its lower extremity.
316. A femur and tibia, anchylosed by their articulating surfaces.
317. A similar specimen, divided longitudinally.
318. The tibia, fibula, os calcis, and bones of the tarsus, firmly united by anchy-

losis. [This is complicated with fracture of the tibia and fibula near the middle, which are united with some degree of distortion. The ossific inflammation extended nearly to the knee.]

319. An analogous specimen, showing nearly the same circumstances. The lower end of the tibia is enlarged, and contains a small sequestrum.
320. A tibia, fibula, os calcis, astragalus, and os naviculare, united by ankylosis. Sections have been made to show the extent of the union.
321. An astragalus, os calcis, the tarsal, and three metatarsal bones, ankylosed.
322. A right astragalus and os calcis, ankylosed on their inner side.
323. The left astragalus and os calcis, from the same individual, ankylosed precisely in the same manner.
324. A longitudinal section of the great and little pastern bones of the foot of a horse, which are ankylosed in consequence of violent ossific inflammation.
325. The foot-lock or coronary bones, the nut-bone, and the coffin-bone or terminal phalange, of the foot of a horse with a stiff joint, ankylosed in consequence of ossific inflammation.
326. The greater coronary, together with the lesser coronary bone, the nut-bone, and coffin-bone of the foot of a horse, ankylosed in consequence of ossific inflammation.

SERIES VII. Exfoliation.

1. *Process in Wood analogous to Exfoliation in Bone.*

327. A longitudinal section of the branch of a tree, from which a portion of the bark was intentionally removed, which induces a process in wood analogous to exfoliation in bone. The part of the wood which is dead and beginning to separate is distinctly marked.
328. A similar specimen, from which a larger portion of bark had been removed.
329. A similar specimen, in which the bark had been removed longitudinally, where the process of separation is further advanced.

2. *Process in Bone preparatory to Separation.*

330. An os frontis, on which a portion of the bone is marked out for exfoliation;

from a person who died in consequence of a blow on the head. Being scalped, and no fracture discovered [although it did exist], the patient was not trepanned; but suppuration having taken place some weeks after the injury, the surface of the bone which was exposed in consequence of scalping became dead, and exfoliation had begun to take place.

331. A calvaria, in which a large portion of the external table of the os frontis had become dead, and was distinctly marked out for separation, and is readily distinguishable by its white colour.
332. A similar specimen; in consequence of a blow on the head.
333. A calvaria, showing a similar exfoliation taking place from a parietal bone.
334. A calvaria, in which may be observed an exfoliation from the os frontis further advanced. [A large part of both the external and internal surfaces of the bone seems to have been removed by absorption, apparently subsequent to fracture.]
335. A calvaria, showing an exfoliation which extends through both tables of the frontal bone, nearly detached.
336. A calvaria, in which death had taken place in two parts of one of the parietal bones, adjoining the sagittal suture, in consequence of some disease. In one part the exfoliation was complete, *i. e.* extending through both tables of the skull, and has separated; in the other, the internal surface of the sequestrum being broader than the external, prevented its separation. Several other ulcers existed in various parts of the skull.
337. Two portions of skull; one removed by the crown of a trephine, the other by the trephine and saw; where part of the bone had become dead, and was marked out by the absorbents for exfoliation.
338. The upper part of the femur of a young subject, from which a portion of the shaft is marked out for separation, having become dead apparently in consequence of a fracture of the bone near its middle. The periosteum, as is usual in such cases, exhibits marks of inflammation above the line of demarcation.
339. A similar specimen from an adult; [apparently after amputation.]
340. The upper portion of a femur, [apparently after amputation,] at the divided extremity of which, the absorbents were detaching a considerable part of the shaft of the bone, preparatory to exfoliation.

341. A portion of the stump of the femur of a young subject, after amputation, with an exfoliation separating from the divided extremity, and luxuriant granulations from the periosteum above this part.
342. A section of the stump of a femur, in a similar state. The actual cautery had been applied, to hasten the process of separation.
343. Part of a tibia after amputation, from which a considerable portion is marked out for exfoliation; [probably in consequence of the bone being splintered at the time of its division.]
344. A section of a tibia after amputation; the process further advanced.
345. Part of a tibia, from which the separation of a considerable portion is almost accomplished.
346. Part of a tibia, with a portion separating from its lower extremity; probably subsequent to fracture. This specimen has been divided longitudinally.
347. The two adjoining portions of a fractured tibia, showing a sequestrum separating from each of the broken ends.
348. A portion of a fibula which has been fractured, showing a sequestrum separating from each of the broken ends.
349. A portion of a tibia, from which two sequestra are nearly detached, which have the whiteness and density of ivory.
350. A portion of a tibia, in which a large part of the shaft forms a sequestrum which is nearly detached, and its place supplied by newly formed bone; [probably after amputation.]
351. A portion of a fibula, from which an extensive exfoliation of the entire substance of the bone is taking place. [Probably from the same limb as the preceding specimen.]
352. A tibia, from which a large exfoliation is taking place, subsequent to a fracture of that bone below its middle. The fibula has been fractured near its upper end, and towards its lower extremity is united by lateral ankylosis to the tibia.
353. A tibia and fibula, from which sequestra were separating. The ossific inflammation was forming new bone around the tibia, and producing lateral ankylosis between the tibia and fibula, while ulceration was marking very distinctly the greater part of the shaft of the tibia for exfoliation. All

these effects were taking place in consequence of a fracture of the tibia and fibula near their lower extremities.

354. Necrosis of the tibia after amputation. [The stimulus of death appears to have gradually extended from the divided extremity to the tuberosity.]

3. *Results of Experiments to show the Process of Exfoliation.*

The following eight preparations comprehend the results of a series of Experiments which were made on the metacarpal and metatarsal bones of asses to show the progress of exfoliation.

355. A metacarpal bone, which had been drilled or perforated transversely near its middle. The surrounding parts of the bone are thickened in consequence of the ossific inflammation.
356. A similar specimen, divided longitudinally, to show the effect of the injury on the inner surface of the bone.
357. A similar specimen, divided longitudinally, to show a deposit of bony matter within the medullary cavity, which forms a bony tube by which the external surfaces communicate with each other across the canal.
358. A transverse section of a metatarsal bone, to show the same circumstances.
359. A metatarsal bone, to which the actual cautery had been applied, and a sequestrum formed ; but which, though perfectly detached, could not separate, on account of its being confined by the surrounding newly formed bone, and consequently could only have been removed by the absorbents, or by art.
360. A longitudinal section of a metatarsal bone, in which half of the sequestrum is attached by wire in its relative situation.
361. A longitudinal section of a metatarsal bone, from which the sequestrum has been removed, to show the interior of the cavity that contained it.
362. Ossific granulations from the metacarpal bone of the near fore-leg ; where a similar sequestrum had been inclosed, but has been removed.

4. *Sequestra separating from the Surface of Bone.*

363. A scapula, in the inferior costa of which is partly inclosed, in newly formed bone, a sequestrum formed in consequence of a gun-shot wound.

364. The humerus of a swan, from the surface of which a sequestrum of considerable extent has separated. The centre of the sequestrum is perforated, as if by a small shot.
365. A radius, in which a large portion of its surface, and apparently of its substance, was in progress towards exfoliation.
366. Part of a tibia, which had been often in a state of ulceration; and by being laid bare for some extent, the exposed surface became dead, and the process of separation had just begun.
367. The lower part of a tibia, in which two portions of the bone had become dead, and are distinctly marked out for exfoliation.
368. The lower part of a tibia, from which an oval portion was exfoliating, in consequence of the application of the actual cautery to the exposed surface of the bone, in an ulcer of the leg.
369. The tibia and fibula of a man whose foot mortified and dropped off in consequence of a popliteal aneurism, of which the patient died before a separation of the ends of the bones took place. The tibia was not exposed regularly all round, but only on one side: the surface of the original bone, being within the influence of the ossific inflammation and granulation, is there covered by new bone, which is uneven on its external surface. The mortification having extended highest on the outside of the leg, a larger portion of the fibula was exposed. [See Preparation, No. 144, Dry. The femur belonging to this extremity. Whether the patient was operated on for the aneurism, and the foot mortifying from that cause, or not, is not recorded.]
370. The lower half of a tibia of a young subject, from which an extensive sequestrum was separating. [The exfoliating portion is dividing into laminæ in an unusual manner, probably in consequence of the application of the actual cautery; and there is a small fistulous canal extending from one side of the tibia to the opposite, as if occasioned by small shot.]
371. A tibia, from the anterior surface of which a large sequestrum has separated. The bone had evidently been long and extensively diseased.
372. The upper part of a tibia, a portion of the surface of which had become dead, and nearly separated. The sequestrum is partially inclosed by newly formed bone.

373. A tibia, in which ulceration had taken place all round the head of the bone, and some way down its shaft: also mortification or death had taken place in several parts of the bone, which extended some way into its substance, and became the cause of a continued sore, from the difficulty nature had to get rid of the exfoliated pieces of bone.
374. A tibia, the upper half of the shaft of which had become dead, but is not surrounded by new bone.
375. A tibia, the lower part of which is in a state of necrosis.
376. A similar specimen. The cavity containing the sequestrum communicated with the joint by a large aperture.
377. A similar specimen. A dead portion is inclosed in a bony case on the anterior and middle part of the bone. Several fistulous apertures communicated with the surface.
378. A section of the lower extremity of a fibula, part of which was exfoliating.
379. The lower part of a fibula, from which the inferior portion has been nearly separated.
380. A fibula, of which the lower half is marked out for separation.
381. Part of a fibula, the upper portion of which was exfoliating; apparently subsequent to fracture.
382. Another specimen.
383. The lower extremity of a fibula, in an ulcerated state, much enlarged, and containing a sequestrum.
384. Two sections of an os calcis, from the articulating and other surfaces of which exfoliations were separating.
385. Two sections of an astragalus, to show the same circumstances.

5. *Death and Regeneration of the whole Shaft of a Bone.*

386. A humerus of a young subject, from which the shaft appears to have been exfoliated, and replaced by a case of newly-formed bone. [The original epiphysis of the lower extremity remains, but seems to have undergone considerable change from absorption at the point of contact with the newly formed bone.
387. An example of necrosis of the ulna and radius, where the original bones had almost entirely disappeared, and have been replaced by newly formed bone.

- 388. A thick irregular case of bone surrounding the ulna ; formed to supply its place after necrosis of that bone.
- 389. A tibia, of which nearly the whole shaft has been regenerated after necrosis.
- 390. Necrosis of the tibia nearly through its whole extent ; the extremities only having escaped.
- 391. Another specimen.
- 392. Another specimen.
- 393. Another specimen. Nearly the whole of the shaft had become dead ; little more than the original epiphyses remaining.
- 394. A new shaft of a tibia, formed after the death of the original bone, a considerable part of which still remains enclosed in the newly formed bony case.
- 395. A similar specimen. The original extremities appear to remain.
- 396. Another specimen, from a young subject, where a large part of the body of the bone is detached, but enclosed in a newly formed bony case.
- 397. A tibia of a young subject, which appears to have been regenerated after the death of a great part of the original bone.

6. Bones from which Exfoliations have been separated.

- 398. The superior portion of a femur, from which exfoliation has taken place after amputation.
- 399. The upper part of a femur after amputation, from which exfoliation had taken place ; showing granulations surrounding the end of the bone.
- 400. A portion of a femur, near its middle, divided longitudinally ; exposing a cavity which probably contained a small sequestrum. The surrounding bone is much thickened in consequence of the ossific inflammation.
- 401. The lower end of an os femoris, considerably thickened ; with ossific deposit in the periosteum in consequence of inflammation. The bone is divided longitudinally, to show necrosis. In the medullary canal a circumscribed cavity is formed, containing a sequestrum of part of the cancellated structure ; and there is a fistulous canal leading from the cavity which contains it.
- 402. The lower part of a femur, much thickened, and of an uniform spongy tex-

ture at the part where the section has been made. The medullary cavity is almost entirely obliterated by bony deposition; but at the lower and posterior part there is a large aperture which was probably for the escape of a sequestrum.

403. A tibia, in which only a very small part of the original bone remains. At the upper end a portion of the newly formed bone is removed, to expose a small remaining sequestrum contained in a cavity from which several fistulous canals lead to the external surface of the bone.
404. A longitudinal section of a tibia, from which sequestra have been removed. Its medullary cavity is nearly obliterated by ossific deposit.
405. A similar specimen. Its cavity is also nearly obliterated by ossific deposit.
406. A tibia, much thickened and ulcerated. A large sequestrum has probably been thrown off.
407. A portion of a tibia, from which an exfoliation had taken place.
408. A similar specimen. Great part of the remaining shaft of the bone had become dead.
409. The lower part of a tibia, from which a superficial sequestrum had separated.
410. A tibia, the lower end of which is swollen and ulcerated, and the medullary cavity exposed, in consequence of death in a part of the bone.
411. The lower part of a tibia, which is affected similarly to the preceding specimen; [probably after the separation of a dead portion.]
412. The upper part of a fibula, greatly enlarged by the formation of new bone, in consequence of the death of the original bone at this part.
413. A digital phalanx, enlarged at its middle from a similar cause.

7. *Sequestra.*

414. A sequestrum, separated from the skull.
415. A similar specimen.
416. Two small portions of skull, which exfoliated.
417. Three small portions, similar.
418. An oblong portion of a skull, comprising a large part of the os frontis and ossa parietalia, which exfoliated.
419. A portion of the os frontis, which was thrown off, after having been much

- acted on by the absorbents. The diplœ is almost entirely destroyed by ulceration, the two tables of the skull being separated from each other through almost their whole extent. The disease was probably venereal.
420. Several portions of skull, which have been exfoliated.
421. A great portion of the inferior maxillary bone of a child, containing several teeth, which exfoliated in consequence of a scrofulous affection.
422. A large portion of the anterior part of the lower jaw of an adult, which exfoliated. The actual cautery had been previously applied.
423. A sequestrum, comprising a considerable part of the shaft of a humerus, which having become dead, and surrounded by a case of new bone, is termed "an internal exfoliation." The surface of this sequestrum has been much acted on by the absorbents, and had been touched by the actual cautery before its final separation. The old label describes it as "An internal exfoliation from Mr. Maitland's os humeri, 1775."
424. A similar sequestrum, apparently from a humerus.
425. A small sequestrum, from the end of a femur, after amputation.
426. Four sequestra, which have been separated from cylindrical bones after amputation.
427. A large portion of the shaft of a femur, which became dead and separated after amputation.
428. A sequestrum, from the surface of a tibia.
429. A considerable portion of a tibia, which, having become dead, has had the actual cautery and trephine applied to it, to accelerate its separation and removal.
430. Two portions of a tibia, which were exfoliated after a compound fracture of that bone.
431. A considerable portion of the shaft of a tibia, which, having become dead, was thrown off, or removed. Its old label describes it as "An exfoliation from the tibia of a girl, eight years of age, which was supplied with new bone; and now is well, and walks."
432. A sequestrum, from the middle of a tibia, with a fistulous aperture leading to the cavity containing it, through the newly formed bone.
433. A large sequestrum, from the surface of a tibia, [chiefly if not entirely composed of newly formed bone, which apparently enclosed or confined

a sequestrum from the original bone underneath, similar to the preceding specimen.]

434. A sequestrum of part of a fibula, with a portion of a newly formed bony case, which surrounds it.

SERIES VIII. Dislocations.

435. The clavicle and scapula of a young subject, in which the clavicle has been dislocated from the acromion scapulæ, with apparent fracture of both the bones.
436. The bones composing the shoulder-joint, showing that the head of the humerus is luxated inwards and upwards; in which situation a new glenoid cavity has been formed for it, between the inferior costa of the scapula and the coracoid process.
437. The bones composing the elbow-joint, showing a luxation of the radius. The form of both the ulna and radius is altered, to adapt them to each other in their new relative situations.

SERIES IX. Scrofula.

1. *Mollities Ossium.*

Deficiency of deposit of earth; or absorption of the earth originally deposited.

438. A section of the humerus, together with the ulna and radius, and several bones belonging to the hand, of a woman who died of mollities ossium. Some of the bones had been broken in several places. [See No. 603. Pathological Preparation in Spirit,—the other section of the humerus from this extremity.]
439. The upper portion of a right femur, affected with mollities ossium, which appears to have been fractured.
440. The left femur, from the same individual as the preceding specimen, which had been fractured, apparently at some distance of time previous to death, there having been an effort towards re-union.

441. Various bones of a monkey, in a very soft and brittle state. They are much thickened, and exceedingly light.
442. Various bones of a young lion, in a similar state ; some of which had been fractured, and others much curved.
443. A portion of the vertebral column of a young subject, from which a considerable proportion of the earthy part of the bone has been absorbed ; [probably from a case of psoas abscess.]
444. A portion of an adult sacrum, which has lost much of [or is deficient in] its earthy matter, being exceedingly light.
445. The upper extremity of an adult femur, which is remarkably light, when compared with its bulk and apparent density.
446. A femur of a rickety person, but slightly curved, and remarkably light in proportion to its bulk.
447. A tibia, which is unusually light, without any alteration of its external appearance, in consequence of a disease analogous to that which has affected the five preceding specimens.
448. An adult femur, of a very unusual character. It is of the ordinary length (15 inches) and straight, but of such exceeding tenuity, that at its middle it does not exceed five-eighths of an inch in diameter. [Whether this singular state of the bone was congenital, or induced by rachitis, paralysis, or other cause, there is no record.]

2. *Rachitis.*

a. *Producing Curvature in Cylindrical Bones.*

449. The right humerus of an adult rickety person, slightly curved.
450. The left humerus of the same individual.
451. The left humerus of a rickety person, more curved.
452. A femur of a rickety person, but slightly curved.
453. A femur, sufficiently ponderous, but curved forwards more than natural, and its head and neck at nearly a right angle with its shaft.
454. A similar specimen, but more characteristic of the disease.
455. The right femur of a rickety person, very similar to the last specimen.
[See No. 461. Dry. Apparently belonging to this extremity.]
456. The left femur of the same individual. [See No. 462. Dry.]

457. A right femur, in which the character of the disease is strongly marked ; the head and neck being at nearly a right angle with the shaft, the shaft highly curved forwards, and the linea aspera greatly produced, or increased in breadth. [See No. 463. Dry.]
458. The left femur, from the same individual, in a similar state.
459. A tibia, with a considerable curve inwards, in consequence of rickets.
460. A dense and ponderous tibia, curved forwards, and compressed laterally.
461. A right tibia and fibula, considerably curved forwards. The fibula, greatly increased in breadth and thickness, answers the purpose of an abutment to the tibia. [These bones apparently belong to the same limb as No. 455. Dry.]
462. The left tibia and fibula of the same individual, [and apparently belonging to the same limb as No. 456. Dry.]
463. A right tibia and fibula, in a similar state ; but more remarkable than any of the preceding specimens, in consequence of the tibia having thrown out a bony process, or exostosis, which is received into a correspondent notch in the fibula ; by which means the fibula is rendered a perfect splint or abutment to the tibia. [These bones apparently belong to the same limb as No. 457. Dry.]

b. *Producing Crooked Spine.*

464. A natural skeleton of an adult spine, in which the degree of distortion is but small.
465. An adult spine, in which the degree of distortion is very considerable, in consequence of counterbalancing curves to the right, to the left, and forwards.
466. A natural skeleton of the trunk of a female, where the degree of distortion is much greater.

3. *Scrofulous Affections of the Skull.*

467. Some of the separate bones of the head of a rickety child, which are thickened ; and some of their surfaces have a singular sandpaper-like appearance.
468. A section of the cranium of a rickety (?) child, which is much thickened ;

with very little distinction between the texture of the tables and the diplöe.

SERIES X. Hydrocephalus.

- 469. The cranium of a child, considerably enlarged.
- 470. Another specimen.
- 471. The calvaria of a child, still more enlarged. A very instructive specimen.
- 472. Another example; the head still more enlarged; the ossification not so far advanced.
- 473. Another still larger example of a hydrocephalous skull.
- 474. Part of the bony compages of a hydrocephalous skull.
- 475. The calvaria of a very diminutive dog, on which is inscribed "Dog 15 years old." [It has the appearance of having been affected either by hydrocephalus, or hydatids in the brain; there being three or four spots in which the bone is deficient, and the spaces occupied by membrane. From the general aspect of the specimen, however, the age of the animal was more probably 15 weeks or months than years.]

SERIES IX. Syphilis.

a. Affections of the Skull.

- 476. The anterior part of a skull, in which the os frontis is affected by the venereal disease, [internally as well as externally.]
- 477. A calvaria, very extensively ulcerated on its external surface only. [Probably venereal.]
- 478. A skull, the frontal and parietal bones of which are extensively affected by venereal (?) ulceration. The fangs of the remaining teeth are exposed, in consequence of the alveolar processes having been absorbed.
- 479. A calvaria, which is ulcerated both on the external and internal surfaces. In one part the ulceration has penetrated through the bone, so as to produce a considerable aperture. [This specimen has the following memorandum written within it: "Sept. 3. 1779. Died about 5 weeks ago, aged 19. G. Brande;" and in addition, in Mr. Hunter's hand-writing, "Supposed to be venereal."]

480. A calvaria, very extensively ulcerated. [Probably venereal.]
481. A calvaria, in which the parietal bones are extensively ulcerated. "Supposed to be venereal."
482. A similar specimen, in which the os frontis is principally affected. "Supposed to be venereal."
483. A similar specimen. A large portion of the right parietal bone has been destroyed.
484. A skull, with the lower jaw ; in which the palate, part of the nasal bones, and orbits are destroyed. All the teeth of the upper jaw have separated, and the alveolar processes have been removed : in the lower jaw two molares only remain, and these are retained merely by the curved points of their fangs ; the alveolar processes having been almost entirely absorbed.
485. The basis of a skull, in which the palate is almost entirely destroyed.
486. A lower jaw, of which a great part is destroyed by ulceration.

b. *Affections of Cylindrical Bones.*

487. A clavicle, scapula, and humerus, on which there had been venereal ulcers.
488. A portion of the os frontis, the ulnæ, femur, and tibia, of the same individual, affected by venereal ulceration.
489. A tibia, affected by the venereal disease.
490. A fibula, [apparently belonging to the preceding tibia,] from which grew a large venereal excrescence.

SERIES XII. Exostosis.

a. *From the Skull.*

491. A portion of a frontal bone, having two small and very dense ivory-like exostoses upon its anterior surface.
492. A calvaria, having a larger exostosis of a similar texture on the posterior edge of the os frontis, on the right side.

b. *From Cylindrical Bones.*

493. The right humerus of a young and apparently rickety subject, from the upper half of which several exostoses have arisen.

494. Part of an ulna and radius, much distorted, apparently in consequence of rickets ; from each of which bones an exostosis has arisen. They probably belonged to the same individual as the preceding specimen.
495. A femur, with an exostosis just above the inner condyle ; from a subject apparently rickety.
496. A portion of femur, with an exostosis above its inner condyle.
497. A large bony protuberance, on the front of a femur, above its middle.
[But apparently an ossification, and not a genuine exostosis.]
498. A large exostosis on the front of a femur.
499. A very similar specimen.
500. An exostosis from the right femur.
501. An exostosis from the left femur of the same individual.
502. An exostosis from the right tibia of the same individual.
503. An exostosis from the left tibia of the same individual.
504. A portion of a tibia, with a minute but dense exostosis on its anterior surface.
505. A section of a tibia, with a conical process or exostosis arising from it.
In this instance the exostosis is a distinct formation on the surface of the original bone.
506. The upper end of a fibula, with spicula of bone projecting from it. [This specimen appears to be the stump of a fibula after amputation near the knee.]
507. The tibia of a fowl, somewhat thickened ; with singular spinous exostoses.

SERIES XIII. Bony Tumours.

a. *Tumours in Bone.*

508. A section of the anterior part of a cranium, to show a very singular bony tumour of considerable size, which occupies the left orbit, part of the right, and the lower part of the os frontis anteriorly : and, on the posterior side, projects into the cavity of the skull, where it must have pressed on the brain. This tumour is lobulated, irregularly rounded,

very dense in its texture, which much resembles that of ivory; and is a disease extremely rare.

b. *Tumours on Bone.*

509. The left scapula of a woman, which was surrounded by an encysted tumour. It has undergone ulceration and ossific inflammation.
510. A bony tumour of considerable size on the first phalanx of a finger.
511. A specimen of the bony matter of a tumour, which occupied the right side of a male pelvis, and involved the os sacrum, ilium, and pubis, in a profusion of newly formed bony spicula.
512. Two sections of a bony tumour, of a large size and dense texture, which arose from the lower part of a femur, chiefly on its posterior surface, and extending downwards into the ham, much impeded the motion of the joint. On this account the limb was amputated; but as soon as the stump began to heal, difficulty of breathing commenced, and the death of the patient soon followed. On examination it appeared that a kind of metastasis had occurred; bony deposit to a great extent had taken place in the pleura costalis, and the lungs had become almost solid masses of bone. [See Nos. 532 and 533, Dry. See also portions of this tumour, preserved to show its recent structure, Nos. 461 and 462, Pathological Preparations in Spirit.]
513. Two sections of a tumour similarly situated. The distinction between the original bone and the substance of the tumour is very clearly defined; the latter apparently originating in the periosteum.
514. A bony tumour on the lower end of a femur. The inner condyle has been destroyed, apparently by ulceration.
515. A very large cauliflower-like tumour, radiating from the end of the bony core of the horn of an ox, apparently after some accidental injury to the horny covering.
516. A rib of a horse, nearly the whole substance of which is occupied with, or converted into, a singular bony tumour, of a spongy texture, everywhere traversed by large canals, and furrowed and indented externally.
517. Several ribs of a chameleon, with rounded bony protuberances on them; supposed to have been fractures united. [They are, however, more

probably scrofulous tubercles ; as on some of the ribs there are several of these enlargements in succession.]

c. Tumours of Bone.

- 518. Two sections of a small irregular cauliflower-like bony tumour.
- 519. Two sections of a rounded bony tumour, with an irregular surface ; which was found in a grave. This tumour, from some resemblance, was supposed, by the person who presented it to Mr. Hunter, to be a urinary calculus.

SERIES XIV. Ossifications.

1. *In Cartilage.*

- 520. The thyroid cartilages, ossified.
- 521. The cartilages of the larynx and trachea, ossified.
- 522. The cartilages of the lower portion of the trachea, ossified.
- 523. The cartilages of the first pair of ribs, ossified, and anchylosed to the sternum.
- 524. A rib, with a portion of its cartilage ossified.
- 525. A sternum, having the xiphoid cartilage, and nearly all the cartilages of the true ribs, ossified.
- 526. Portions of the cartilages of the ribs, ossified.
- 527. Cartilages of the last true ribs of a large quadruped, ossified. [Apparently those of an ox.]
- 528. Cartilages of some of the false ribs, in a similar state, together with ossification of some of the surrounding parts. [Apparently from the same animal.]
- 529. Cartilages of some of the false ribs of a large quadruped, which have been fractured, and united by bony deposit.

2. *In soft Parts.*

- 530. A portion of dura mater, with small bony spicula on each side of the fal-ciform process.
- 531. A small portion of dura mater, with ossification on the right side of the falx.

532. The spinal column and ribs from the same individual as the specimen No. 512, Dry, in whom large bony tubercles had formed in the lungs; part of which adhere to the pleura costalis on each side.
533. The trachea and lungs of the same subject as the preceding specimen. The lungs are ossified, or occupied by large bony tubercles, to a very considerable extent.
534. The skeleton of a man, thirty-nine years of age, which is very remarkable for the production of ossific growths from many parts, of various dimensions and extent;—some forming exostoses merely, whilst others pass from one part of the skeleton to another, and have thus produced ankylosis or immobility of most of the members. The exostoses may be observed on the os frontis, mastoid process, and occiput, and in other parts of the skeleton where muscles are inserted; as, near the angle of the lower jaw, where the masseter is inserted; at the extremities of the spines of the vertebræ; at the coronoid processes of the ulnæ; in the femur, at the part where the glutæus maximus is implanted; &c.

The second, and more extensive kind of ossifications, have in general followed the course of the larger muscles; and may be seen, on the right side, in the situation of the deltoid, joining the clavicle and acromion of the scapula to the humerus; in the situation of the supra-spinatus; and passing from the inferior angle of the scapula to the humerus, in the situation of the teres major and latissimus dorsi. On the back, more extensive ossifications of the muscles appear, which affix the scapulæ on both sides to the sacrum and ilium, and to the spines of the lumbar and dorsal vertebræ. On the left scapula, the ossification of the teres major has not extended quite to the humerus, but the dorsum presents a singular process or ossification with smooth sides, and a flattened overhanging margin, like an auxiliary or second spine.

From the pelvis, ossifications extend from the sacrum and ilium in the direction of the glutæus magnus; and from the tuber ischii and os pubis, in the course of the biceps and triceps adductor muscles. These extend to the right femur.

Ossifications of the tendinous and ligamentous parts appear to be still more common: producing ankylosis of the vertebræ; of the left elbow-

- joint ; of the tibia and fibula to each other, on both sides ; of the ankle-joints ; and general consolidation of the bones of the tarsi.
535. "A small portion of bone, coughed up from the lungs of a nobleman." [Under what circumstance is not recorded : but without further explanation, the impression would naturally be that it was a bony concretion formed there, and expectorated : but this does not appear to have been the case. This substance is very dense bone ; one part of it has a high degree of polish, and has more the appearance of a portion of a decayed tooth than that of any other kind of bone. It must be useless to conjecture, were it of any import, or it might be conceived that a portion of a tooth had become detached during sleep, and having passed into the fauces or trachea, on producing irritation was expectorated.]
536. An osseous tumour, composed chiefly of spherical granules of the size of mustard seeds, formed in the lungs of a turkey.
537. Bony tubercles, composed chiefly of calcareous matter, formed in the lungs of a camel.
538. Calcareous matter from the lungs of an ox.
539. Two minute osseous concretions from the lungs, immediately under a cicatrix ; and a still more minute one from the pineal gland, of a maniac.
540. "A small spicula of bone from the diaphragm of a horse." [It has not the appearance of having been an ossific deposit formed in that situation ; but more probably has travelled from the cavity of the stomach, or some other viscus or part, similar to the progress which bones, needles, and other extraneous substances sometimes make. [For an example see No. 70. Pathological Preparation in Spirit.] Its surface much resembles that of bone which has been acted on either by the gastric juice, or by the absorbents.]
541. Two small singularly branching ossifications, from the liver of a sheep.
542. A portion of the capsule of the spleen, ossified.
543. Two small ossifications, in a portion of the tunica vaginalis.
544. A minute spherical tubercle, from the tunica vaginalis.
545. Small dense ossifications, from the coats of an artery.
546. Portions of ossified arteries.
547. Ossified lymphatic glands, on the surface of a blood-vessel.

548. Ossifications on a portion of the coat of an encysted tumour, from a sheep.
549. A similar specimen. Probably another portion of the same cyst.
550. The coats of an encysted tumour, ossified.
551. "Ossifications in the coats of an encysted tumour, which contains two loose bony tubercles." [Though the cyst now contains the two bony tubercles, there is no authority for supposing they were formed there; and are more probably only from the same viscus, or animal.]

SERIES XV. Bones affected by Gun-shot Wounds.

552. A calvaria, with a small leaden shot remaining imbedded in it. There are impressions of other shot, which had been received in the same part, but had subsequently been thrown out.
553. A parietal bone, in which are two deep indentations in consequence of gun-shot. The shot have been discharged or extruded from the wounds.
554. A section of a portion of the tusk of a young elephant, on the inside of which a leaden musket-ball projects, which is partially incrustated with newly formed ivory. [The ball had penetrated into that part of the tooth which was lodged in the socket or alveolar cavity: the splintered part on the external surface shows the situation of its entry.]

One description will suffice to explain the manner in which the balls in this and the following specimens have been incased or imbedded in ivory. The tusk of an elephant being an extra-vascular substance, (like the teeth and tusks of other animals,) has consequently no powers of restoration beyond the point of the conical vascular pulp on which the tusk is formed: this pulp never extends beyond the limits of the alveolar cavity in which the tusk is situated, and therefore that part of the tusk beyond or external to the gum has no power of restoration, and is without sensation; so that an elephant's tusk (as most persons have had opportunities of observing) may be sawed off close to the jaw without giving pain to the animal. If a ball strike the exerted solid part of the tusk, it can at most only splinter it; but in all cases where balls are found imbedded in the

substance of the tusk, the animal has been shot in the face, and the ball has passed through the thin side of the base of the tusk, into the conical cavity containing the vascular pulp; whereby the natural functions of the pulp are deranged, inflammation is excited, and ossific or ivory deposit first begins in that part of the cavity or pulp which contains the ball; consequently it becomes enveloped in an ivory case (See No. 554). The deposit of ivory proceeds within the cavity of the tusk until the whole of it is filled; but it is generally very unlike the natural secretion, being usually of a yellower colour and granular. As the tusk continues to grow, it advances forwards, and the part containing the ball may be protruded to any distance beyond the jaw, but not until that part of the tusk is entirely filled with the ossific deposit.]

555. A section of the tusk of an elephant, in the cavity of which a ball is lodged, as in the preceding specimen; but the secretion of ivory has been much more abundant.
556. A section of the tusk of an elephant, under similar circumstances. The ball is entirely covered with newly formed ivory.
557. Two sections of the tusk of an elephant, to show an iron musket-ball imbedded in its substance.
558. A portion of the tusk of an elephant, in which an iron musket-ball had been received, and afterwards incased in the subsequently formed ivory.
559. Two other specimens, containing iron balls.
560. Sections of a similar specimen.
561. Another specimen, with its outer part splintered.
562. A section of the tusk of an elephant, where a leaden ball had passed, but the aperture is now filled up, and an ivory excrescence is formed on the inside. The ball was found opposite to this excrescence, on the other side, in the hollow of the tusk.
563. Three ivory excrescences, formed within the cavity for the pulp, in the tusks of elephants.
564. A larger excrescence of the same kind, and from the same situation.

SERIES XVI. Diseased Teeth.

565. A section of a tusk of a walrus, near its base; in which the cavity that contained the vascular pulp was beginning to be filled up with osseous tubercles.
566. A similar section of a tusk of a walrus, in which the cavity is more completely filled with granular ivory-like deposit.
567. An irregularly formed cuspidatus, which is extensively coated with tartar.
568. A section of the bones of the face, with the posterior molar tooth singularly incrustated with tartar.
569. An excrescence [apparently a large mass of tartar,] which formed upon the stump of a tooth on the left side of the upper jaw of Margaret Fillbey, at Heston in Middlesex, aged 70. It separated during her sleep, without pain.
570. Two teeth of a small dog, on which tartar had concreted.
571. A bicuspid tooth, the fang of which had increased in size, and caused so much pain as to create suspicion of disease in the antrum.
572. Two molar teeth, the fangs of which are greatly enlarged by ivory-like deposit. Also an incisor, with a spiculum of enamel, resembling an exostosis, on its anterior surface.
573. Two incisor teeth from a child, the fangs of which are united laterally.
574. A bicuspid tooth from a young lady, which had been transplanted, and remained four years. Also two incisors which had been transplanted, but had fallen out in consequence of the absorbents having acted on their fangs
575. A bicuspid tooth, which had been drawn, stopped, and replaced; which was followed by absorption of the fang, and the tooth dropped out.
576. An incisor tooth, which had been transplanted, but became dead; and the fang having been acted on by the absorbents, the tooth dropped out.
577. Various diseased teeth, and stumps of teeth.
578. A transverse section of the jaws of a lion, or tiger, which are much diseased; and several of the teeth have separated in consequence of ulceration.

579. The anterior part of the lower jaw of a lion, or tiger, containing diseased teeth.

SERIES XVII. Diseases of Blood-Vessels.

a. *Illustrations of Inflammation:*

580. A portion of mesentery and intestine, in an inflamed state, injected to show increased vascularity.
581. The ears of a rabbit, the smaller of which was in its natural condition, the other in a state of inflammation, at the time of the death of the animal, in consequence of which it is more vascular, and in some degree thicker in its coats. [This state of the ear was induced by the act of freezing, in an experiment on the power of producing heat in animals, in the year 1777.]
582. The head of a cock, into the comb of which two small spurs have been transplanted. Firm union has taken place, but very little extent of growth, before the death of the animal.
583. The head of a cock, into the comb of which a spur, apparently from another fowl, has been transplanted. [The spur has acquired a most unusual size, and curling obliquely forwards, has separated into two nearly equal portions, that diverge from each other. They seem to have been occasionally cut shorter, to prevent the destruction of the bird by pressure on its neck, and also to allow it to feed, as it could not otherwise have reached the ground with its bill. Each portion is, at the least, six or eight times the size of the spurs on the legs of the bird. The legs are also preserved, on account of the morbid appearances they present, in a considerable enlargement about the joints, by ossific deposit; and the disposition they express for the formation of horny substance externally.]
584. The metatarsal bones of two cocks, on which were transplanted the spurs of hens. [A large addition of ossific deposit has taken place in each instance, in consequence of inflammation, which was probably excited by the operation.]

b. *Ascites.*

585. A large cyst, from the left ovarium of Sarah Kippus, a widow, aged 55, of the parish of St. Mary, Norwich.

[An account of this extraordinary case of dropsy of the ovarium, by Philip Meadows Martineau, one of the Surgeons to the Norfolk and Norwich Hospital, is printed in the Philosophical Transactions of the Royal Society of London, for the year 1784, vol. lxxiv. page 471 ; and thence was copied into most of the medical and other periodical publications of that time. The following is a very brief abstract :

“The complaint originated after a miscarriage of her first child; at the age of twenty-seven. From the year 1757 to August 1783, when she died, she had eighty times undergone the operation of tapping; and, in all, had taken from her 6631 pints of fluid, or upwards of thirteen hogsheads. One hundred and eight pints was the largest quantity ever taken away at one time; she was never tapped more than five times in any one year; and the largest quantity in a year was four hundred and ninety-five pints. The most fluid collected in the shortest space of time, was ninety pints in seven weeks, from July 24, to Sept. 10, 1780; which is very nearly two pints a day.

“On the 10th of August 1783, the poor woman died. On the following day, on opening the body, seventy-eight pints of clear fluid were drawn off: supposing therefore all the fluid to have been taken at the last operation, then in three weeks she had collected seventy-eight pints, which is more than three pints and a half each day; a quantity far exceeding what she had taken. The disease was situated in the left ovarium. The sac, during life, once held one hundred and eight pints, but I could not after death make it contain more than fifty. The sac is in the collection of John Hunter, Esq.”

c. *Diseases of Veins.*

586. A portion of the jugular vein of an ass, that had been bled several times. The coats are varicous, or dilated into a kind of aneurismal sacculi in several places.

587. A similar preparation.

588. The blood-vessels of a testicle become varicous, and which from their pressure had destroyed [or produced absorption of] the substance of the testicle. The vessels are injected.

589. Small spherical bony tubercles from the peritonæal veins.

d. *Diseases of the Heart.*

590. A heart, in a natural or healthy state, injected. Used by Mr. Hunter for comparison with the diseased specimens.

591. A heart, injected. It is very much enlarged, particularly the auricles; the blood-vessels remaining nearly of their natural size.

e. *Diseases of Arteries. Aneurism.*

592. A left arm, injected and dissected. The axillary artery is obliterated, and the brachial artery is smaller than natural at its commencement; but the sub-scapular artery, and the branch which inosculates under the acromion with the supra-scapular artery, are very large. The vessels have been filled with injection from below.

593. The superior portion of an aorta, irregularly dilated and ossified. The individual to whom it belonged had an aneurism in each poplitæal artery.

594. The continuation of the preceding aorta into the iliacs; also irregular, and spotted with ossifications.

595. The arch of an aorta irregularly dilated, and spotted with ossifications; particularly near its origin.

596. The arch of an aorta considerably enlarged, and almost entirely composed of osseous matter. The common trunk of the right carotid and subclavian arteries is also very much dilated.

597. An aneurismal enlargement of the arch of an aorta, and a considerable aneurismal sac communicating with it, by a very regular circular opening with a smooth edge. This sac pressed upon the cartilages of three ribs of the right side, and had produced the almost total absorption of the middle one. All the cartilages had previously become ossified, and the sac had begun to protrude externally between two of them.

598. An aneurism of the arch of an aorta. On its anterior side it has dilated

into a considerable sac, which has pressed upon, and almost destroyed, a large part of the first and second rib on the left side ; and also a part of the first bone of the sternum, which is included within its cavity.

599. A large aneurism of the arch of an aorta, which projected several inches beyond the ribs. It includes a part of the clavicle, the first bone of the sternum, and the first, second, and third ribs of the right side, whose texture has been almost entirely destroyed by the pressure of the blood contained within the aneurismal sac.
600. An aneurism of the arch of an aorta, projecting externally to a very considerable extent. The internal sac communicates with the external one, by a rounded opening through the first bone of the sternum, which is almost entirely destroyed ; but the disease does not otherwise appear to have produced much injury to the ribs, or neighbouring parts.
601. A large aneurismal sac, formed in the dorsal and lumbar region of the aorta descendens. The bodies of the four lower dorsal and first lumbar vertebræ, as well as the 11th and 12th ribs on the left side, have been in a great measure destroyed by the pressure of the contents of the sac. [See No. 388. Pathological Preparation in Spirit, which is apparently that part of the aorta which has been removed from this specimen, showing the aperture by which the vessel communicated with the aneurismal sac.]
602. A section of a large aneurismal sac, which was formed in the upper part of the thigh. A bougie is placed in the upper orifice, and the lower is filled with injection. The femoral artery and vein are injected.
603. The femoral arteries of a man who died of aneurism in Saint George's Hospital.
604. A knee-joint with a poplitæal aneurism of a considerable size ;—the arteries and veins of the surrounding parts are injected.
605. A knee-joint, from an individual on whom the operation for poplitæal aneurism had been performed with success.
606. A poplitæal aneurismal sac, from a man on whom Mr. Hunter operated in St. George's Hospital, in December 1785.

[This was the first successful case where the operation was performed according to Mr. Hunter's new method, for the cure of poplitæal aneurism, "by tying the vessel in the anterior part of the thigh, at some distance

from the diseased part, thereby to diminish the risk of hæmorrhage, and admit of the artery being more readily secured, should any such accident happen:—that the force of the circulation being thus taken from the aneurismal sac, the progress of the disease would be stopped: and he thought it probable, that if the parts were left to themselves, the sac with its contents might be absorbed, and the whole of the tumour be removed; which would render an opening into the sac unnecessary.

“The patient was a coachman, forty-five years of age:—the disease had first been perceived three years previous to his admission into the hospital, and had gradually increased during the whole of that period:—he recovered from the operation, and returned to his employment, but died from fever fifteen months afterwards. On examination, the cicatrix on the anterior part of the thigh was scarcely discernible: the ham had no appearance of tumour, and was, to the eye, exactly like that of the other limb; there was, however, a solid tumour perceptible to the touch, filling the hollow between the condyles.

“The femoral artery was impervious, from its giving off the *arteria profunda* as low as the part included in the ligature; and at that part there was an ossification for about an inch and a half along the course of the artery, of an oval form, the rim of which was solid, becoming thinner towards the centre, and not bony but ligamentous. Below this part the femoral artery was pervious down to the aneurismal sac, and contained blood, but did not communicate with the sac itself, having become impervious just at its entrance.

“What remained of the aneurismal sac was somewhat larger than a hen’s egg, but more oblong, and a little flattened, extending along the artery for some way:—the sac was perfectly circumscribed, not having the smallest remains of the lower orifice into the poplitæal artery:—the sac contained a solid coagulum of blood which adhered to its internal surface; and appeared to be composed of concentric lamellæ uniform in colour and consistence. The poplitæal artery a little below the aneurismal sac was joined by a small branch very much contracted, which must have arisen from either the *profunda* or the trunk of the femoral artery. About two inches below the sac the poplitæal gave off, or divided into,

the tibiales. The profunda was of the usual size, but a good deal ossified for some length after leaving the femoral artery: the two tibials, where they go off from the poplitæal, were in the same state. The trunk of the femoral vein, where it passes along the tumour, must have been obliterated, for at this part it appeared to send off three equal-sized branches passing over different parts of the aneurismal sac:—these must have been dilated branches; none of them having the course which the trunk of the vein should have taken.”

For a detailed account of this operation, and preparation, of which the above is a very abridged extract, see the “London Medical Journal,” for 1786, Vol. vii. page 391. and Vol. viii. page 126 to 135, with a plate.—See also the “Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge,” Vol. i. 8vo. 1793. p. 147 to 156.—Also “Principles of Surgery,” by John Bell, 4to. Edinb. 1801. p. 320; and 367 to 385: “On the safety with which we operate on the fore part of the thigh.” Mr. Bell adds,—“The Operation proposed by John Hunter is one of the most important improvements in modern surgery; and one which only a great Surgeon could invent.”]

607. The sac of a small poplitæal aneurism; the artery injected.

SERIES XVIII. Diseases of the Lungs.

608. The lungs, injected with wax; many of the air-cells of which are very much enlarged.

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612. A hernial sac and tunica vaginalis, laid open.

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615. A corroded cast, in wax, of a urethra, in which a stricture existed in the membranous part; attended by ulceration, and fistulæ in perinæo.

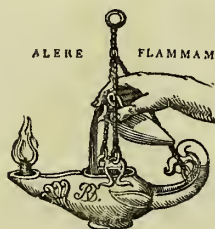
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618. A similar preparation, [probably from the liver.]
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624. A cast of a female pelvis much deformed in consequence of being affected with mollities ossium. The bones of the pubis are compressed together, and project forwards, by which means the acetabulæ present themselves in front of the pelvis.
625. A cast of a human uterus, "which had arrived at the full period of gestation : and on the patient accidentally falling, her labour pains came on, and before she could be delivered the uterus burst, and the child's arm made its escape out of the uterus, but did not pierce the peritonæum, at the part where it is reflected over the side of the bladder, uterus, and inside of the pelvis." [See No. 979. Pathological Preparation in Spirit : —the portion of the uterus in which the laceration took place.]



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CATALOGUE

OF

THE CONTENTS OF THE MUSEUM

OF

THE ROYAL COLLEGE OF SURGEONS

IN LONDON.

PART III.

COMPREHENDING

THE HUMAN AND COMPARATIVE OSTEOLOGY.



LONDON:

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1831.

ADVERTISEMENT.

IN the following Part of the General C  talogue of the Osteological Division of the Museum, all the additions which have been made to that portion of the Collection, are incorporated with the Hunterian Specimens, in their respective places, and separately distinguished, as being either a Donation, or Purchase.

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— Cyprinus	1724 - 1726
— Esox	1727 - 1738
— Silurus	1739 - 1751
— Gadus	1752 - 1770
— Muræna	1771 - 1776
— Gymnotus	1777
— Diodon	1778 - 1787
— Tetradon	1788 - 1792
— Balistes	1793 - 1794
— Ostracion	1795 - 1803
Ossicula Auditus of bony fishes—(<i>Species various.</i>)	1804 - 1805

ORDER CHONDROPTERYGII.

1. *Branchiis liberis.*

GENUS Acipenser	.	.	.	.	.	1806 - 1807
— Chimæra	.	.	.	.	.	1808

2. *Branchiis fixis.*

GENUS Squalus	.	.	.	.	.	1809 - 1898
— Raja	.	.	.	.	.	1899 - 1935
— Petromyzon	.	.	.	.	.	1936

CATALOGUE
OF THE
OSTEOLOGICAL DIVISION
OF THE
MUSEUM.

Order I.—BIMANA.

Genus I.—HOMO. Species I.—SAPIENS. *Linnæus.*

Dentition.

INCISORES $\frac{4.}{4.}$ CUSPIDATI $\frac{1.1.}{1.1.}$ MOLARES $\frac{5.5.}{5.5.}$

Varieties.

- 1.—CAUCASIAN.
- 2.—MONGOLIAN.
- 3.—AMERICAN.
- 4.—NEGRO OR ÆTHIOPIAN.
- 5.—MALAY.

CATALOGUE.

OSTEOLOGICAL DIVISION.

GENUS HOMO.

No.

1. **THE** skeleton of Charles Byrne, known by the name of O'Brien, the Irish Giant.

The following record of his death is extracted from the Annual Register Chronicle, June 1783. Vol. XXVI. p. 209.

“ In Cockspur Street, Charing Cross, aged only 22, Mr. Charles Byrne, the famous Irish Giant, whose death is said to have been precipitated by excessive drinking, to which he was always addicted, but more particularly since his late loss of almost all his property, which he had simply invested in a single Bank note of £700.

“ Our philosophical readers may not be displeased to know, on the credit of an ingenious correspondent who had opportunity of informing himself, that Mr. Byrne, in August 1780, measured eight feet; that in 1782 he had gained two inches; and after he was dead, he measured eight feet four inches.

“ Neither his father, mother, brother, nor any other person of his family, was of an extraordinary size.”

It has been said, that in his last moments he expressed an earnest desire that his ponderous remains might be sunk out at sea; but if such were his wish, it was never fulfilled, as Mr. Hunter obtained his body before interment of any kind had taken place.

Hunterian.

2. Skeleton of an adult male, of ordinary stature, five feet eight inches in height.

From the British Museum.

3. Skeleton of an adult male, five feet ten inches high.

This, and the preceding skeleton, may serve as fair examples for comparison with that of O'Brien.

Hunterian

4. Skeleton of Tera Poo, a native of the Island Otaheite, or King George the Third's Island, in the South Pacific Ocean.

This man was a patient in the London Hospital, and died of extensive disease of the lungs; their structure was almost entirely destroyed by tubercles, many of which were in a state of suppuration.

The body was obtained for the purpose of preserving the skeleton, and the very beautiful examples of tattooed cutis it afforded; of which there are three specimens preserved in the Gallery of the Museum.

The third true rib of the left side is bifid at its sternal articulation, giving two separate cartilages to that side of the sternum.

Presented to the Museum by Sir William Blizard, 1816.

5. Skeleton of a boy about twelve years of age; shewing the state of the bones at that period.

From the British Museum.

6. Skeleton of a child about two years of age.

From the British Museum.

7. The skeleton of Madlle. Crachami, the Sicilian Dwarf; born in or near Palermo, in the year 1814. She was exhibited in various parts of England; and in Bond Street, London, during the summer of 1824, where she died in the tenth year of her age. The skeleton measures twenty inches in height.

The following account connected with this extraordinary little skeleton, is extracted from the fifth volume or supplement to the "Lectures on Comparative Anatomy," by Sir E. Home, Bart., V.P.R.S. Page 191.

"An Italian woman, twenty years of age, when by her reckoning three months gone with her third child, was travelling in a caravan with the baggage of the Duke of Wellington's army on the Continent. In the middle of the night, in a violent storm, when she was fast asleep, a monkey, that had been chained on the top of the caravan, in its fright found its way into it, and, as the warmest birth it could find, got under her loins. Half asleep, she put her hand down to scratch herself; but scratching the monkey, it bit her fingers, and threw her into fits. She did not miscarry, but went her full time. The child when born only weighed one pound, and measured seven inches in length.

"It was reared with difficulty, and was carried by its parents to Ireland, where it became consumptive: it was brought to London, and shewn as a curiosity: it died just after it completed its ninth year. I saw it several times while alive, and it came into my possession after death. Its skeleton is preserved in the Museum of the College of Surgeons in London, and measures twenty-one inches.

"Upon examination of the body after death, the fontanelle was closed. There was no fat in any part but in the sockets of the eyes, behind the balls. The uterus had not been developed beyond that contained in a foetus of four months: the bladder was distended with urine to the size of a hen's egg. As the child had never made water freely from its birth, the bladder probably had been injured at the time the monkey alarmed the mother.

"On comparing the ovaria with those of an abortion at three months, they were nearly of the same size. The child when I saw it could walk alone, but with no confidence. Its sight was very quick, much attracted by bright objects, delighted with every thing that glittered, mightily pleased with fine clothes, had a shrill voice, and spoke in a low tone; had some taste for music, but could speak few words of

“ English ; was very sensible of kindness, and quickly recognised any person who had treated it kindly.

“ The mother has had a fifth child in Ireland, which, like her first three children, is naturally formed.

Presented to the Museum, June 7th, 1824, by Sir E. Home, Bart.

At the suggestion of Sir W. Blizard, the thoracic duct was carefully examined, but no obstruction appeared to have existed ; and it was, comparatively speaking, of large size.

The distention of the bladder with urine, mentioned by Sir E. Home, might have been consequent upon the irritation of a large blister that had been applied nearly over the whole of the abdomen.

8. Skeleton of a human foetus, between the second and third months of utero-gestation.

From the late Mr. Heaviside's Collection.

9. Skeleton of a human foetus, about the third month.

Hunterian.

10. Skeleton of a human foetus, between the third and fourth months.

From the late Mr. Heaviside's Collection.

11. Skeleton of a human foetus, at about the fourth month of utero-gestation.

From the late Mr. Heaviside's Collection.

12. Skeleton of a human foetus, at the fifth month.

From the late Mr. Heaviside's Collection.

13. Skeleton of a human foetus, at the sixth month.

Hunterian.

14. Skeleton of a human foetus, at the seventh month.

From the late Mr. Heaviside's Collection.

15. Skeleton of a human foetus, at the ninth month ; or full period of utero-gestation.

Presented by Sir W. Blizard, June 28th, 1811.

HUMAN CRANIA.—(Caucasian Division).

16. Skull of an European. Adult, male.

Hunterian.

17. Skull of an European, with a considerable elevation of the frontal bone.

Hunterian.

18. Skull, European ; the frontal suture unobliterated.

Hunterian.

It was a curious remark made by Dr. Leach, and others who have examined that immense collection of crania and other bones in the catacombs at Paris, that the number of adult skulls in which the frontal suture remained unobliterated was so considerable, that, from a calculation made on the spot, he estimated the proportion to be at least one in eleven.

19. Skull of a young Englishman, who poisoned himself in the Island of Pulo Pinang.

Presented by Dr. Henderson, 1822.

20. Skull, male. European, adult.

Hunterian.

21. Skull, adult ; much laterally compressed, generally termed boat-shaped. From Scotland.

Presented by Sir E. Home, Bart.

22. Skull, adult. European.

Hunterian.

23. Skull, adult. European.

Hunterian.

24. Skull, adult. European.

Hunterian.

25. Skull, adult. European.

Hunterian.

26. Skull, adult. European.

Hunterian.

27. Skull of a young female, European ; beautifully white.

Hunterian.

28. Skull of a very aged female, in which the alveolar processes are absorbed in consequence of the total loss of teeth in both jaws.

Vide Hunter on the Teeth. Plate VII.

Hunterian.

29. Skull of an aged male, shewing the same circumstances as the preceding specimen.

From a patient who died in the London Hospital.

Presented by Sir W. Blizard, 1811.

30. Skull of a male, European.

Hunterian.

31. Skull, European ?

In this specimen, the bones of the face are much compressed laterally.

Hunterian.

32. Skull, in which the os occipitis is considerably elevated by the existence of numerous ossa triquetra in the lambdoidal suture.

Hunterian.

33. Skull. European ?

Hunterian.

34. Skull, European.

This and the eleven following crania were received in October, 1827, from Dr. Leach ; and are most probably part of the collection formed by him in Paris—principally from the catacombs. It may be noticed, that

in this small number of skulls, there are two in which the frontal suture remains distinct; thus supporting the correctness of his calculation mentioned in the note to No. 18.

Frontal suture unobliterated; the alveolar processes absorbed.

Presented by Dr. Leach.

35. Skull, adult. European.

Dr. Leach, October 24th, 1827.

36. Skull, adult. European.

Dr. Leach, 1827.

37. Skull, adult. European.

Dr. Leach, 1827.

38. Skull, adult. European.

Dr. Leach, 1827.

39. Skull of an adult, in which the occipital bone projects in a singular manner from the rest of the skull, in consequence of numerous ossa triquetra existing in the lambdoidal suture.

Dr. Leach, 1827.

40. Adult skull. European.

Dr. Leach, 1827.

41. Adult skull. European.

Dr. Leach, 1827.

42. An adult skull. European.

Dr. Leach, 1827.

43. An adult skull. European.

Dr. Leach, 1827.

44. An adult skull. European.

Frontal suture unobliterated.

Dr. Leach, 1827.

45. An adult skull. European.

Hunterian.

46. An adult skull. European.

Dr. Leach, 1827.

47. The skull of a native of Tartary.

Hunterian.

48. A skull found in digging a drain near Whitehall Stairs, in the rear of Lord Carrington's house: there were two other skulls and many loose bones found in the same spot, which fell to pieces in the attempt to remove them.

It was presumed, and not without probability, that these were the remains of some of the victims of the civil wars in the reign of Charles the First, both from the situation in which they were discovered, and from their being too near each other to have been buried in the usual way, supposing it ever to have been a place of interment.

Presented by William Lynn, Esq., May 23, 1823.

49. An adult skull.

The ossa triquetra in this specimen are so remarkably large, that that portion of the occipital bone above the external transverse ridge, is divided into three equal portions or sections, by them.

Hunterian.

50. An adult male skull, articulated.

In this specimen all the bones are separated from each other, but preserving their relative positions; those composing the cranium can be removed, for the greater facility of examination.

Purchased 1829.

51. The bones of a foetal cranium, separate. European.

From the late Mr. Heaviside's Collection.

52. A foetal cranium. European.

Hunterian.

53. The skull of an Egyptian mummy.

The ancient Egyptians, who are supposed to owe their origin to the Arabian colonies, form part of the Syrian branch of the Caucasian race, and the character of this cranium seems to support that opinion.

Presented by Dr. Henderson, 1822.

HUMAN CRANIA continued.—(Mongolian Variety.)

54. The skull of a Chinese. Male.

Hunterian.

55. The skull of a Chinese Ladrone. Male.

This and the following specimen were from two criminals executed at Macao for piracy and murder, committed in 1816 on board an American ship. The men were decapitated, and their heads obtained by J. Reeves, Esq., at Canton, and sent to England by the hands of Captain Stewart of the *Lady Melville* to Sir E. Home, for the Museum of the College.

The Ladrone is a cluster of small islands lying off the southern extremity of China: they are the resort of pirates who infest the mouth of the river Canton, and have long set the whole naval power of China at defiance.

Presented by J. Reeves, Esq., 1821.

56. The skull of a Chinese Ladrone.

Presented by J. Reeves, Esq., 1821.

57. Skull of a Chinese.

This and No. 58 are of undoubted originality; they were obtained from a native cemetery near Pekin, and brought to England by Mr. Dill, Surgeon, E. India Company's service.

Presented by Anthony White, Esq., March 10, 1823.

58. Skull of a Chinese.

Presented by Anthony White, Esq., 1823.

59. Skull of a Chinese. Male.

Hunterian.

60. Skull of a Chinese. Male.

Hunterian.

61. Skull (in a decayed state) of a native of Greenland.

Found in a tumulus on a promontory or headland called by the natives Sichilik, on the North-West Coast of Greenland. Latitude 76° North. Longitude 66° West.

*Presented by Alexander Fisher, Esq., Surgeon of H. M. S. Alexander,
Captain Parry, January 6, 1819.*

62. Skull of an Esquimaux. Male.

Brought to England in H. M. S. *Fury*, one of the vessels under the command of Captain Parry.

Presented November 14, 1823.

HUMAN CRANIA continued.—(American Variety.)

63. Skull of a native of South America.

This, and No.'s 64 and 65, were brought to England as examples of the aboriginal natives of Peru: they were taken from an ancient burial place in the Island of Titicaca, situated in the middle of the Lake of Chucuito, in a province of Peru of that name. The Island of Titicaca is celebrated as having been the residence of Manco Copac, the founder of the Peruvian nation.

These very singular skulls resemble the Caribbean in the great depression

of the forehead (particularly in this individual specimen), but here it does not appear as the mere result of mechanical pressure, but rather as a peculiar and original conformation. In these specimens also, the foramen magnum occupies a much more anterior station in the base of the skull, than in any cranium with which they have been compared; forming a striking contrast, in this particular, with the negro skull.

Presented by Earl Dudley, June 17th, 1828.

64. A similar skull.

Presented by Earl Dudley.

65. A similar skull.

Presented by Earl Dudley.

66. Skull of a Caribbean chief.

The Caribs were the ancient inhabitants of the Caribbean Islands, the name applied to that Archipelago which extends in a crescentic form from the Island of Porto Rico, to the coast of South America.

This skull exhibits the depressed forehead, so peculiar in this race; and supposed to be considerably increased, if not produced, by artificial pressure, applied when young.

Hunterian.

67. Skull of a Carib.

The frontal bone much depressed.

Hunterian.

HUMAN CRANIA continued.—(Æthiopian Variety.)

68. Skull of an African, adult. Male.

Hunterian.

69. Skull of a native warrior from Ashantee.

This was obtained by Mr. Robert Morison, a naval surgeon, who accompanied the African travellers, Messrs. Clapperton and Pearce; and who took charge of a box provided by the College, for the preservation of specimens of natural history. On the journey northwards, towards Timbuctoo, both himself and Captain Clapperton fell a sacrifice to the climate. In a letter written previous to his departure from England in H.M.S. *Brazen*, Captain Willis, then lying at Spithead, he said, "If I take the boxes out with me, I hope to return them by some man of war to Portsmouth; and if I do not, I should hope they would be returned to their proper destination. August, 1825."

Ashantee is a large territory of Africa, immediately behind the Gold Coast, which was scarcely known till the year 1806. It is considered to be one of the most powerful and civilized nations in Western Africa.

70. Skull of a Negro. Adult.

Hunterian.

71. Skull of an African, from the Gold Coast.

Hunterian.

72. Skull of an African. Adult.

Hunterian.

73. Skull of an African. Adult.

Hunterian.

74. Skull of an African. Adult.

Presented by the late Henry Cline, Esq., Sen., 1824.

75. Skull of an African. Adult.

Hunterian.

76. Skull of an African, female. Adult.

Hunterian.

77. Skull of a native of Madagascar.

Hunterian.

HUMAN CRANIA continued.—(Malay Variety.)

78. A skull, (probably of a New Zealander), in which the frontal bone has been shattered by a violent blow.

In this specimen a dislocation of the lower jaw has taken place, on the left side, by which the condyloid process has been dislodged from the glenoid cavity, and slipping forwards, has formed a new joint on the eminentia articularis. That this displacement has been permanent, appears, from the adaption of the bony surfaces to each other, and from the undue wearing of the teeth on that side of the jaw.

79. Skull of a native of New Zealand.

Much broken.

Hunterian.

80. Skull of a native of New Zealand.

Presented by Thomas Hobbs Scott, Esq., 1821.

81. Head of a New Zealand chief.

Presented from Governor King, by the hands of Sir E. Home, Bart., 1808.

82. Head of a New Zealander.

Scarified after death, and not tattooed.—This is by no means an unfrequent practice amongst the natives, for the purpose of deceiving unwary purchasers of such relicks, and for which they are sufficiently civilized to demand, sometimes, a very unreasonable price.

Hunterian.

83. Head of a New Zealander.

Scarified after death.

Presented by Admiral Sir Thomas Beresford, 1828.

84. Head of a New Zealander.

A jad-stone ornament is attached to one of the ears.

Presented by Robert Keate, Esq.

85. Head of a New Zealander.

Scarified after death.

Presented by Governor Farquhar, by the hands of

Sir E. Home, Bart., 1822.

86. Head of a New Zealander.

Presented by Sir Joseph Banks, Bart., 1808.

87. Head of a New Zealander.

Presented by Thomas Hobbs Scott, Esq., 1821.

88. Head of a New Zealander.

Presented by Mrs. Maria Graham, 1824.

89. Head of a New Zealander.

Presented by Mrs. Maria Graham, 1824.

90. Skull of a native of New Holland.

A well marked skull.

Hunterian.

91. Skull of a native of New Holland.

From the British Museum.

92. Skull of a Native of New Holland. Male.

A strongly marked skull.

Hunterian.

93. Skull of a native of New Holland. Male.

Hunterian.

94. Skull of a native of New South Wales.

Hunterian.

95. Skull of a native of Van Dieman's Land. Male.

This skull has evidently suffered from fire; the whole of the occiput, and part of the right parietal bone, appear to have been destroyed by it; in all probability a relick of cannibalism.

Presented by Thomas Hobbs Scott, Esq., 1821.

96. Skull of a native of Van Dieman's Land.

Hunterian.

97. Skull of a native of Van Dieman's Land, fourteen years of age, having only three incisors in the lower jaw.

Presented by G. J. Guthrie, Esq., February 2, 1825.

98. Skull of a native of Van Dieman's Land.

From Fort Dalrymple.

A striking similitude exists between this and the preceding skull, No. 97, in the irregularity of the dentition of the lower jaw, viz.: in having but three incisors. From the circumstance of the symphysis of the jaw in both specimens bisecting the alveolar cavity of the central incisor, and, from the regularity and close approximation of the teeth, even the natural supposition of one having been extracted at a former period, can barely be allowed. Though this may be but a casual coincidence, it is at least curious, and deserving of notice.

Presented by Sir E. Home, Bart., 1809.

99. Skull of a female native of Van Dieman's Land, about a year old.

This specimen is remarkable for the great central projection of the parietal bones, giving, in consequence, an angular form to the head.

Presented by T. Hobbs Scott, Esq., 1821.

100. "The skull of a New Hollander, whose second temporary grinders were formed as permanent grinders, and therefore has only two bicuspides."

Original Hunterian description.

101. Skull of a native of the Island of Java; aged.

Presented by Dr. Henderson, 1822.

102. Skull of a native of Eastern India.

Presented by Dr. Henderson, 1822.

103. Skull of a young Gentoo, from the banks of the Ganges.

The parietal bones remarkably prominent.

From Mr. Brookes's Collection.

Brought to England and presented to Mr. Brookes by Mr. Collins.

104. Cranium of a Gentoo, from the banks of the Ganges.

This skull affords a striking contrast with the preceding, in being much compressed laterally.

From Mr. Brookes's Collection.

Presented to Mr. Brookes by Thomas Copeland, Esq.

105. Skull of a Malay. Male.

Hunterian.

106. Skull of a native of Rajpootana, in Hindostan.

Presented by Dr. George M. Paterson, H. C. S., March 31, 1823.

Vide "An Essay on the Construction of the Asiatic Cranium." By Dr. P., in Vol. I. of the "Transactions of the Phrenological Society of Edinburgh."

107. Skull of a Hindoo idiot, from the province of Bengal.

Presented by Dr. G. M. Paterson, 1823

108. Skull of a Coolie, one of the lowest caste of Hindoos; from the province of Bengal.

Presented by Dr. G. M. Paterson, 1823.

109. Skull of a Mussulman, from the province of Bahar, in Hindostan.

Presented by Dr. G. M. Paterson, 1823.

110. Skull of a Mussulman, from the province of Delhi, in Hindostan.

Presented by Dr. G. M. Paterson, 1823.

111. Bones of the skull of an Indian Fœtus. Separate.

Presented by Dr. Henderson, 1822.

SECTIONS OF HUMAN CRANIA, &c.

112. Vertical section of a skull.

This skull shews the relative thickness of the external and vitreous tables, and the diplœ; exposing also, the frontal sinus, the antrum, the sphenoidal and ethmoidal cells, &c.

Hunterian.

113. The corresponding section of No. 112.

Hunterian.

114. A similar section.

Right side.

Hunterian.

115. The corresponding section of No. 114.

Hunterian.

116. A vertical section of a skull.

The diplœ almost entirely obliterated.

From the British Museum.

117. A calvaria or skull-cap.

The diplœ of which is nearly obliterated.

From the British Museum.

118. Portion of the cranium of a black female native of the Isle of France.

It is of extraordinary density and thickness, and the diplöe is intirely obliterated.

*Presented by Nathaniel Wallick, Esq.,
Inspector of the Botanical Garden at Calcutta, 1813.*

119. A small portion of a parietal bone of great thickness.

Hunterian.

120. A skull-cap, in which numerous large ossa triquetra exist in both sagittal and lambdoidal sutures.

Hunterian.

121. A transverse vertical section of a skull. The section made anterior to the coronal suture.

Hunterian.

122. A similar section, made posterior to the coronal suture, through the ossa parietalia.

Hunterian.

123. Section of the anterior part of a skull.

The frontal sinus, the cavity of the antrum, the ethmoid, and sphenoid cells are exposed, and the pituitary membrane of the nose injected.

Hunterian.

124. The corresponding section of No. 123.

Hunterian.

125. Section of the right scapula through its articular cavity, and inferior to the spine.

Hunterian.

126. Section of the left scapula, through its articular cavity, and inferior to the spine.

Hunterian.

127. A similar section of the scapula of a child.

Hunterian.

128. A similar section of the scapula of a child, the coracoid process not united.

Hunterian.

129. A longitudinal section of the right humerus, to shew its structure.

Hunterian.

130. A section of the left os innominatum, through the acetabulum.

Hunterian.

131. A nearly perpendicular section of the left os innominatum, from the crista ilii, through the acetabulum and arch of the pubis.

Hunterian.

132. Section of the right os innominatum, from the crista ilii to the great ischiatic notch.

Hunterian.

133. A similar section of the right os innominatum of a child about a year old.

Hunterian.

134. Section of the upper portion of the left os femoris, for structure.

Hunterian.

135. Section of the upper portion of the left os femoris, for structure.

Hunterian.

136. A longitudinal section of the right os femoris, for structure.

Hunterian.

137. A longitudinal section of the left os femoris, for structure.

Hunterian.

138. A longitudinal section of the left tibia, for structure.

Hunterian.

139. Adult upper and lower jaws, the teeth of which (on the right side) have been extracted and preserved separately, viz:—

Incisores $\frac{2}{2}$ Cuspidati $\frac{1}{1}$ Bicuspides $\frac{2}{2}$ Molares $\frac{3}{3}$

Vide Hunter on the Teeth. Plate III. Fig. 1 and 2.

140. Upper and lower adult jaws, in which the teeth are exposed to their full extent in the alveolar cavities; (on the left side.)

From Mr. Brookes's Collection.

141. The upper and lower jaws of a young subject, in which the temporary or deciduous, and the permanent sets of teeth are very beautifully shewn.

This preparation was made for Mr. Hunter by William Lynn, Esq. more than fifty years ago.

Hunterian.

142. A stand containing a series of specimens, which exhibit the development of the teeth in both jaws.

These specimens are figured in Mr. Hunter's work on the teeth.

Hunterian.

No. 1. One side of the lower and upper jaw of a foetus, about three or four months old, shewing the groove which is afterwards formed into sockets.

Vide Hunter on the Teeth. Plate VIII. Fig. 1 and 2.

No. 2. One side of the lower and of the upper jaw of a foetus, about six months old, at which period some of the partitions have shot across near the anterior part, forming distinct cells.

Vide Hunter on the Teeth. Plate VIII. Fig. 3 and 4.

No. 3. One side of the upper and lower jaw of a new-born child, shewing the last mentioned circumstance in a more advanced state.

Vide Hunter on the Teeth. Plate VIII. Fig. 5 and 6.

No. 4. One side of the lower jaw of a fœtus, about eight months old, shewing the state of the teeth at that period. The five corresponding teeth of the upper jaw are also displayed separately.

No. 5. The lower jaw of a child seven or eight months old, in which the first two incisors had cut the gum, shewing the sockets of six teeth on each side. The mouths of the alveoli are contracted over the teeth, especially those of the grinders, where they have not yet began to open for the passage of the teeth.

Vide Hunter on the Teeth. Plate VIII. Fig. 7.

No. 6. One side of an upper jaw where the cuspidatus of that side had been formed high up in the jaw, and therefore could never appear through the gum.

Vide Hunter on the Teeth. Plate VIII. Fig. 8.

No. 6.* One side of the upper jaw of a child about two years of age, shewing a posterior grinder coming down towards the surface of the jaw, and also two incisors appearing in their alveoli, which are open posterior to the deciduous teeth.

No. 7. Half of the upper jaw of a child, where the cuspidatus was inverted, so that its point was turned up against the jaw, and the growing mouth of its cavity towards the gum.

Vide Hunter on the Teeth. Plate VIII. Fig. 9.

No. 8. The corresponding portion of the same jaw, shewing a similar inversion of the cuspidatus.

No. 9. Part of a lower jaw cut through at the symphysis; the incisor of the child is standing in its socket, and the adult incisor forming in a distinct socket, underneath.

Vide Hunter on the Teeth. Plate IX. Fig. 2 and 3.

This section also shews that the bicuspidates are formed in distinct sockets of their own, and not in the socket of the grinder, which stands above.

- No. 10. The corresponding portion of the upper jaw, No. 6.* In this section the alveoli are opened to expose the secondary teeth.
- No. 11. Half of the upper jaw of a child about eight months old, shewing the incisors in progress of cutting at that period ; the teeth of the other side of the jaw are displayed separately.
- No. 12. Half of the upper and lower jaw of a child about nine months old, in which the incisors of both jaws have cut the gum.
- No. 13. One side of the upper and lower jaw of a child about eight or nine years of age, where the incisores and cuspidati of the fœtus were shed, and their successors rising in new sockets ; shewing likewise the two grinders of the child, with the bicuspidates forming underneath. The first adult grinder was ready to cut the gum ; and the second grinder in the lower jaw is lodged in the root of the coronoid process, and in the upper jaw it is in the tubercle.

Vide Hunter on the Teeth. Plate IX. Fig. 1.

- No. 14. Portion of the upper and under jaw of a child about ten years of age, in which the adult or permanent teeth are exposed in their alveoli ; the fœtal incisores and cuspidati having been shed.
- No. 15. Two portions of the lower jaws of children about six years of age, in one of which is shewn the state of the fœtal teeth ; and one of the permanent grinders appearing in the alveolar cavity. The other shews a similar tooth, the anterior part of the jaw having been cut away.
- No. 15.* The anterior part of an adult lower jaw, to shew the incisores, cuspidati and bicuspidates.
- No. 16. One side of the upper and lower jaw, in which the outer plate of the alveolar process was taken off to expose the fangs of the

teeth in their sockets. The length of each fang is at once seen with respect to its neighbour, and this kind of articulation pointed out at one view.

Vide Hunter on the Teeth. Plate VI. Fig. 1.

No. 17. Four sections of lower jaws at different periods of life, from the age when the five shedding teeth are completely formed, to that of a complete set. These specimens show four things: First, the lengthening of the jaw backwards, which is seen by the oblique line made by the four condyles; secondly, the gradual rise of the two processes above the line of the teeth; thirdly, the gradual increase of the teeth in proportion as the jaw lengthens; and, fourthly, the part formed always keeping the same size.

Vide Hunter on the Teeth. Plate XVI. Fig. 2.

143. A skull, exhibiting an inversion of the right upper cuspidatus, the crown of which projects upwards and inwards, into the cavity of the nostril of that side.

Vide No.'s 7 and 8 in the preceding series.

Hunterian.

144. A portion of the upper jaw of the right side, in which the cuspidatus has been formed so high up, as to prevent its appearing through the gum.

Vide No. 6 in the preceding series.

Hunterian.

145. A similar preparation.

Hunterian.

146. A molaris of the upper jaw, having the adjoining molaris inverted and firmly ankylosed to it.

Hunterian.

147. A frame, containing a series of specimens explanatory of the growth and structure of the human teeth.

Figured in Mr. Hunter's work on the teeth.

Hunterian.

A perfect set of sixteen teeth from one side of both jaws, taken out of their sockets to expose the whole of each tooth:

No. 1. Side view of the teeth of the lower jaw; the five single are similar to those in the upper jaw, but the grinders in this have only two fangs.

(a. a.) The two incisors.

(b.) The cuspidatus; showing, in the same view, how much longer it is than the others.

(c. c.) The bicuspidates.

(d. d.) The first two grinders, having two fangs.

(e.) The third grinder, or dens sapientiæ, having also but two fangs.

No. 2. A similar view of the teeth of the upper jaw; the lettered references apply to this, as to the first row.

(a. a.) The two incisors, showing the hollowed inner surface of those teeth.

(b.) The cuspidatus, showing the same.

(c. c.) The bicuspidates, showing the two points on the basis of each. The first of them has a forked fang.

(d. d.) The first two grinders having three fangs.

(e.) The third grinder, or dens sapientiæ, having also three fangs.

Vide Hunter on the Teeth. Plate V.

No. 3. (a.) An incisor slit down its axis, to shew the enamel upon the body of the tooth, covering much more of the convex, than of the concave part.

Vide Hunter on the Teeth. Plate XIV. Fig. 17.

- (b.) An incisor, worn so much down as to expose the whole end of the bony part, a circle only of enamel remaining.

Vide Hunter on the Teeth. Plate XIV. Fig. 18.

- (c.) A cuspidatus, showing the same circumstance.

Vide Hunter on the Teeth. Plate XIV. Fig. 16.

- (d.) A lateral view of the enamel of a bicuspid cut longitudinally.

Vide Hunter on the Teeth. Plate XIV. Fig. 15

- (e.) A similar view of the enamel of a molaris.

- (f.) A similar section, showing the same in a molaris.

Vide Hunter on the Teeth. Plate XV. Fig. 14.

- (g.) The basis of a molaris whose points were worn down, and the bony part which projected into those points exposed.

Vide Hunter on the Teeth. Plate XIV. Fig. 12.

- (h.) A molaris whose bony part is wholly exposed, and only a circle of enamel left, covering the sides all round.

Vide Hunter on the Teeth. Plate XIV. Fig. 13.

- (i.) The grinding surface of a horse's molaris, to show the irregular course of the enamel.

Vide Hunter on the Teeth. Plate XIV. Fig. 20.

- (k.) A section of one of the denticuli of an Asiatic elephant's molaris, showing the ivory, enamel, and crusta petrosa.

- (l.) A horizontal section of the molaris of a horse, to show the course of the enamel.

No. 4. A series of teeth in longitudinal section, to show the relative size of their cavities; principally cuspidati. There is amongst them a molaris from the lower jaw, with a large concretion of tartar attached to it.

No. 5. A series of teeth in section to show their cavities.

- (a. a. b. c. c. d.) Show the cavities of the teeth, in the incisores, cuspidatus, bicuspides, and a molaris.

- (e.) Longitudinal section of a molaris, to expose the cavity.
- (f.) A similar section of a molaris.
- (g.) The cavity in the body of a molaris exposed in a transverse section.
- (h.) A similar specimen.
- (i.) A molaris of the lower jaw, with part of its fangs sawn off, to show that the sides of the cavity, or canal, have grown together, and divide it into two small canals, which are indicated by the two dark points.

Vide Hunter on the Teeth. Plate XIV.

Fig. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

No. 6. A series of deciduous incisores and molares, to show the gradual decay previous to their being shed.

- (a.) Seven incisors, showing the progressive change.
- (b.) Seven molares, showing the same changes.

Vide Hunter on the Teeth. Plate XV. Fig. 2 and 3.

- (c.) An incisor of the lower jaw of a young horse, showing the absorption of its fang, forming a cavity for the reception of the crown of the adult tooth beneath.

No. 7. The teeth from one side of both jaws of a child of five or six years of age, showing the temporary teeth almost completely formed. There are seven (*viz.*, four above, and three below) of the succeeding teeth seen at the roots of the first set.

- (e. e.) The bodies of the first adult grinders nearly formed.

Vide Hunter on the Teeth. Plate X. Fig. 1.

No. 8. The teeth from one side of both jaws of a child of seven years of age. This is an age at which there are more teeth formed, and forming, than at any other period of life: *viz.*, the ten temporary teeth complete, the ten incomplete to succeed

them, and the two adult grinders; making twenty-two in this side, and of course forty-four in the whole.

The fangs of the temporary incisors may be seen beginning to decay at their points.

Vide Hunter on the Teeth. Plate X. Fig. 2.

No. 9. The teeth from one side of both jaws of a child eight or nine years old; principally to show the progress of the second set, and the beginning and decay of the first set.

Vide Hunter on the Teeth. Plate XI. Fig. 1.

No. 10. The teeth from one side of both jaws of a youth about eleven or twelve years of age, showing the further progress of the one set towards perfection, and of the other in their decay.

Vide Hunter on the Teeth. Plate XI. Fig. 2.

No. 11. The teeth from one side of both jaws of a youth about fourteen years of age, nearly in a perfect state.

No. 12. The teeth from one side of both jaws of a youth about eighteen years of age.

No. 13. The five teeth in half of each jaw of a fœtus of seven or eight months, showing the progress of ossification from the first incisor to the second molaris.

Vide Hunter on the Teeth. Plate IX. Fig. 4.

No. 14. A similar set of teeth, somewhat more advanced in ossification; from a fœtus of about nine months.

Vide Hunter on the Teeth. Plate IX. Fig. 5.

No. 15. The teeth from one side of both jaws of a child eight or nine months* old, showing the five temporary teeth in a

* The late Dr. Blake, in his "Essay on the Structure and Formation of the Teeth in Man and various Animals," 8vo. Dublin, 1801, page 43, has availed himself of a typographical

more advanced state, with the first adult molaris; the adult incisores and one cuspidatus are also begun to be formed.

Vide Hunter on the Teeth. Plate IX. Fig 6.

No. 16. A comparative view (in vertical section) of the incisores, and a permanent incisor tooth in its progress towards completion.

Vide Hunter on the Teeth. Plate XIII. Fig. 2. *a. b. c. d.*

No. 17. A similar view of the same changes in a deciduous and a permanent molaris.

Vide Hunter on the Teeth. Plate XIII. Fig. 2. *e. f. g.*

No. 18. A series showing the gradual growth of a single tooth, from its first formation nearly to its being almost complete.

Vide Hunter on the Teeth. Plate XIII. Fig. 3.

No. 19. A series to show the formation of the cavity and fangs of the molares of the lower jaw.

(*a.*) Shows the common cavity in the body of the tooth.

(*b.*) Shows the cavity still deeper.

(*c.*) Shows the bony arch thrown over the mouth of the cavity, and dividing that into two openings, which give origin to the two fangs.

(*d. e. f.*) Show the progress of these fangs.

Vide Hunter on the Teeth. Plate XIII. Fig. 1. *A. a. B. &c.*

error, in the substitution of the word *years*, for *months*, to criticise Mr. Hunter's Work; but it will be found, that in the text and reference, at pages 78 and 82, Mr. Hunter describes them properly, as the teeth of a child of eight or nine *months*, and not years.

There is however, unfortunately, a double error concerning this identical figure, which may in some degree excuse Dr. Blake; for at page 78 before alluded to, reference is made to Plate X. *Fig. 6.*, whereas Plate IX. was meant and described; Plate X. having only two figures in it.—W. CLIFT.

No. 20. A similar series of the molares of the upper jaw.

(g.) Shows the common cavity of the tooth.

(h.) Shows the slight tucking in of the mouth of the cavity, at three different points, from which three ossifications shoot.

(i.) Shows these ossifications.

(k. l.) Show the gradual growth of these fangs.

Vide Hunter on the Teeth. Plate XIII. Fig. 1. A. a. F. G. &c

148. A human tooth (bicuspid) in longitudinal section, for structure.

Presented by Sir E. Home, 1807.

149. Internal organ of hearing. Adult.

From Mr. Brookes's Collection.

In this preparation the cavity of the tympanum, the semicircular canals, the fenestra ovalis, fenestra rotunda, and the groove for the reception of the tensor tympani are shown ; the opening of the Eustachian tube, the aperture for the transmission of the chorda tympani, the aqueductus Fallopii and the mastoid cells are also exposed.

ORDER II.—QUADRUMANA.

GENUS SIMIA.

Dentition.

INCISORES $\frac{4}{4}$

CUSPIDATI $\frac{1}{1}$ $\frac{1}{1}$

MOLARES $\frac{5}{5}$ $\frac{5}{5}$

Habitat:

AFRICA, INDIA, and the INDIAN ISLANDS.

Sub-Genus TROGLODYTES.—(*Geoffroy.*)

150. Skeleton of the Chimpanzee or Black Oran Outang. Male.

Troglodytes niger—*Geoff*:

(*Homo silvestris*—*Tyson*. *Homo troglodytes*—*Lin*: *Pongo*—*Buff*:)

Fig:—*Tyson Anat: of a Pygmy*. 1699. Skeleton, viscera, &c.—

Buff: Hist: Nat: XIV. t. 1.

Habitat: Africa; Angola and Congo.

This animal in the adult state, if at all, is but very imperfectly known.

Mus: Brookes.

151. Skeleton of a young Chimpanzee. Male.

Troglodytes niger.

Mus: Brookes.

152. Skeleton of a young Chimpanzee. Female.

Troglodytes niger.

Died in the Menagerie at Exeter Change, September, 1819. Its height, when living, two feet three inches.—*Vide* the stuffed skin in the Museum.

Purchased.

153. Skull of a young Chimpanzee.

Troglodytes niger.

Presented by Earl Spencer.

Sub-Genus PITHECUS.—(*Geoffroy.*)

154. Skull of a young Orang Outang.

Pithecus Satyrus.

This belonged to an animal younger, probably, than that brought to England by Dr. Abel, in 1817.

Habitat :—Borneo.

Presented by the late Sir Thomas S. Raffles, 1820.

155. Skeleton of a young Orang Outang.

Pithecus Satyrus—*Geoff*:

(*Simia Satyrus*—*Lin* : Jocko—*Buff* :)

Fig :—Abel's *Embassy to China*. Audebert *Hist : des Singes*,
pl. Anat : 1. *fig*. 3. Cranium.

Habitat :—Borneo, Sumatra, Malacca, &c.

This Animal was brought to England by the late Dr. Abel, who accompanied Lord Amherst, in the Embassy to China, in the year 1817. It was a native of Borneo, one of the Great Sunda Islands, in the Indian Ocean. It arrived in England in August, 1817; and survived its transportation to this country until the 1st of April, 1819, during which period it was in the Menagerie at Exeter Change.

For an interesting and detailed account of the habits of this Animal, *vide* Dr. Abel's description.

Its death was accelerated, if not caused, by the irritation consequent on the cutting of its teeth, which circumstance sufficiently proves its nonage. The stuffed skin is in the Museum.

Presented by Sir E. Home, Bart., April, 1819.

156. Skeleton of a young Orang Outang.

Pithecus Satyrus.

It is worthy of remark, that in addition to those characteristic differ-

ences described by various authors, as existing between those nearly allied Sub-Genera, *Pithecus* and *Troglodytes*, two remarkable ones (though not generally noticed) exist in the number and division of some of the parts of their skeleton.

In the *Pithecus* or Orang Outang, the ribs, as in the human body, are twelve on each side ; but the Sternum differs from that of the Chimpanzee in being considerably broader in proportion to its length ; and in the second, third, fourth and fifth bones, which compose it, being divided longitudinally into two parallel rows, the separate portions alternating with each other, leaving an indented suture between them, which is particularly distinct in the young animal ; the remains of this separation may be traced in the supposed Adult or *P : Wurmbii*.

In the Chimpanzee the ribs are thirteen in number on each side ; an additional pair being attached to the first lumbar vertebra ; the sternum in this animal is simply divided in the ordinary manner, into five separate portions, which are entire ; and the sternum is altogether narrower or more laterally compressed than in the *Pithecus*.

Mus : Brookes.

157. Skeleton of the Pongo or Wurmb's Ape. Adult.

Pithecus Wurmbii.

(*Pongo Wurmbii*—*Geoff : Pongo—Wurmb. Mem : Soc : Bat : ii. 245.*

Fig :—Audebert Hist : des Singes, pl : Anat : II. f. 5 and 6. Skeleton and Cranium.

Habitat :—Borneo and the Indian Archipelago.

This is presumed to be the Orang Outang, or *Pithecus Satyrus*, in an adult state.

Presented by the late Sir T. S. Raffles, November, 1822.

158. Skull of a very large adult Pongo.

Pithecus Wurmbii.

This specimen, and No.'s 159 and 160, were sent to England from Pulo Pinang, or Prince of Wales' Island, by Thomas White Esq. The animal was a native of Borneo.

This skull must have belonged to an animal decidedly larger than that whose skeleton is preserved in the Jardin des Plantes, of which an original drawing, of the natural size, made in Paris, in 1819, by the Conservator, is preserved in the Museum portfolio.

Presented by Sir W. Blizard, January 2, 1809.

159. The radius and ulna of the left superior extremity of the same animal.

Pithecus Wurmbii.

Presented by Sir W. Blizard.

160. The ulna of the right superior extremity of the same animal.

Pithecus Wurmbii.

Presented by Sir W. Blizard.

Sub-Genus HYLOBATES.—(*Illiger.*)

Dentition as in Orang Outang.

161. Skeleton of the Greater Gibbon.

Hylobates Lar.

(*Homo Lar*—*Linn*: *Pithecus Lar*—*Geoff*: Long-armed Ape—*Pen*: *Quad*:

Le Grand Gibbon—*Buff*:)

Fig:—*Buff*: xiv. *pl.* 2. *Audeb*: 1. § 2. *f.* 1.

Habitat:—East Indies; near Coromandel, and Malacca, and the Malacca Islands.

This specimen was brought from the forests of Deval in the province of Bengal, and is a male. The skeleton is rendered imperfect by the absence of the skull, which was retained by Dr. Henderson, who presented the bones to the Museum in 1822.

162. Skeleton of the Wow Wow or Silvery Gibbon.

Hylobates leuciscus.

(*Pithecus leuciscus*—*Geoff*: *Gibbon Cendré*—*Cuv*: *Le Moloch*—*Aud*:)

Fig:—*Audebert* 1. § 2. *f.* 2.

Habitat:—Malacca, and the Sunda Islands.

Mus: *Brookes.*

163. Skeleton of the Silvery Gibbon.

Hylobates leuciscus.

Presented by Dr. Henderson, 1822.

164. Skeleton of the trunk of a Gibbon.

Hylobates.

In this specimen, the skull and extremities being deficient, it is difficult to fix the species: upon comparison, however, it resembles the Silvery Gibbon most nearly, but differs in having an additional pair of ribs.

Hunterian.

165. Skull of a young Silvery Gibbon.

Hylobates leuciscus.

Habitat :—Malacca.*Presented by Dr. Henderson, 1822.*

166. Vertical section of the skull of a Gibbon.

Hylobates leuciscus?.

Hunterian.

167. Skeleton of the Siamang or Raffles' Ape.

Hylobates Syndactyla. (Simia Syndactyla—*Raffles*.)*Fig* :—Horsfield *Zool* : *Res* :*Habitat* :—Sumatra.

This animal was shot at Sumatra, and presented to Mr. Brookes by Evan Evans, Esq., Surgeon R. N.

Mus : *Brookes*.Sub-Genus CALLITHRIX.—(*Cuvier*.)

168. Skeleton of the Squirrel Monkey or Lesser Caimiri of South America.

Callithrix sciureus—*Geoff* : (Simia sciurea—*Lin* : Saimiri—*Buff* :)*Fig* :—*Buff* : xv. *pl.* 57. *Audeb* : *Hist* : v. § 2. *f.* 7. *F. Cuvier Mam* : *pl.**Shaw Zool* : i. *pl.* 25.*Habitat* :—The Brazils and Guiana.*Mus* : *Brookes*.

169. Skeleton of a similar animal.

Callithrix sciureus.

Presented by the late H. Cline, Sen., Esq., 1824.

Sub-Genus CERCOCEBUS.—(*Geoffroy.*)

Dentition as in Orang Outang.

170. Skeleton of the Malbrouck Monkey.

Cercocebus Cynosurus—*Geoff.* (*Simia Faunus*—*Lin*: *Malbrouck*—*Buff*:)

Fig:—*Buffon*, xiv. *pl.* 29. ♀ *Audeb*: *Hist*: iv. §. 2. *f* 5. ?

Habitat:—Africa, principally Senegal.

Hunterian.

171. Skeleton of a similar Monkey.

Cercocebus Cynosurus.

Died in the Menagerie at Exeter Change.

Presented by W. H. Clift, 1823.

172. Skull of the Capuchin Monkey.

Dentition:—*Incisores* $\frac{4}{4}$ *Cuspidati* $\frac{1}{1}$ $\frac{1}{1}$ *Molares* $\frac{6}{6}$ $\frac{6}{6}$

Cebus Capucinus:—*Geoff.* (*Simia Capucina*—*Lin*: *Sai*—*Buff*:)

Fig:—*Buff*: *Hist*: *Nat*: xv. *pl.* 8. *Schreb*: *tab.* 29. *Audeb*: v. § 2. *f.* 4, 5, 6.

Habitat:—Guiana.

Mus: *Brit*:

173. Skull of the Capuchin Monkey.

Cebus Capucinus.

Presented by the late H. Cline, Sen., Esq., 1824.

174. Skeleton of the Capuchin Monkey.

Cebus Capucinus.

The animal died in the Menagerie at Exeter Change.

Presented by W. H. Clift, 1823.

175. Skeleton of the Capuchin Monkey.

Cebus Capucinus.

Presented by John Gunning, Esq., 1818.

Genus SEMNOPITHECUS.—(*F. Cuvier.*)

176. Skull of the Negro Monkey. Young ?.

Semnopithecus Maurus. (*Cercopithecus maurus* :—*Geoff* :

Guenon Negre :—*Buff* :)

Fig :—*Edw* : *Glean* : *pl.* 311. *Adult.* *Buff* : *Supp* : *vii.* *pl.* 83.

Schreb : *tab.* 22. *B.* *Young.*

Habitat :—The Island of Java, Ceylon, and also in Africa.

Hunterian.

177. Skull of the Negro Monkey. Young ?.

Semnopithecus Maurus.

Hunterian.

178. Skull of the Negro Monkey. Young ?.

Semnopithecus Maurus.

Mus : *Brit* :

Genus CERCOPITHECUS.—(*Geoffroy.*)

179. Skull of the Purple-faced, or Broad-bearded Guenon. The upper part of the skull removed.

Cercopithecus latibarbus—*Geoff* :

(*Simia dentata*—*Shaw* : *Broad-toothed Baboon*—*Penn* : *Guenon à face pourpré*—*Buff* :)

Fig :—*Shaw's Zool* : *i.* *pl.* 13. *Buff* : *Supp* : *vii.* *pl.* 21.

Habitat :—Africa ?.

This animal, while living, was in the possession of the late Henry Cline, Jun., Esq. After its death a small pointed piece of wood was found imbedded in the left hemisphere of the brain, having pierced the skull, leaving an aperture in the squamous edge of the temporal bone of that side. It was known to have been wounded in the head, by an arrow, a considerable time previous to its death, but little or no attention was paid to the circumstance, as the animal did not appear to have suffered materially from it.

Presented by the late H. Cline, Sen., Esq., 1824.

180. Skull of a similar monkey.

Cercopithecus Latibarbatus.

*Mus: Brit.*Sub-Genus MACACUS.—(*Lacépède.*)

181. Skull of the Chinese Bonneted Monkey.

Cercopithecus sinicus—*Geoff:* (*Simia Sinica*—*Lin:* Bonnet Chinois—*Buff:*)*Fig:*—*Buff:* xiv. *pl.* 30. *Audeb:* iv. *f.* 2. 11. *Shaw's Zool:* i. *pl.* 20.*Habitat:*—Ceylon.

This animal is considered by Cuvier as the adult of the Cercopithecus pileatus, from its close approximation both in habits and character.

Dentition as in Orang Outang.*Mus: Brookes.*

182. Skull of the Bonneted Monkey.

Cercopithecus sinicus—*Geoff:*

In this specimen, the teeth have been drawn from both jaws, on one side, and displayed separately.

Hunterian.

183. The skull of the Pig-tailed Baboon.

Pithecius Rhesus—*Geoff:*(*Le Macaque à queue courte*—*Buff: Supp:* vii. *Le Rhesus*—*Audeb:*)*Fig:*—*F. Cuvier Mam:* *Audeb: Hist:* II. § 1. *t.* 1.*Habitat:*—East Indies; banks of the Ganges.

The frontal and right parietal bone in this skull have suffered considerably from disease.

Presented by Dr. Henderson, 1821.

184. Skull of a small Pig-tailed Baboon.

Pithecius Rhesus—*Geoff:**Presented by the late H. Cline, Sen., Esq., 1824.*

185. Skeleton of the Brown Baboon.

Pithecius Nemestrinus.

(*Simia nemestrina*—*Lin:* Pithecius—*Geoff:* Babouin à longues jambes—*Buff:*)

Fig:—*Buff: Supp:* VII. *pl.* 8. *Schreb: tab.* 9.*Habitat:*—Java and Sumatra.*Mus: Brookes.*

186. Skull of the Magot or Barbary Ape. Adult.

Pithecus Inuus.

(*Simia Inuus*—*Lin*:—*Pithèque*—*Buff*:)

Fig:—*Buff*: *Supp*: vii. *pl.* 2. *f.* 4, 5. *Audeb*: 1. §. 3 *t.* 1. *F. Cuvier Mam*:

Habitat:—Barbary, Egypt, and Gibraltar.

Mus: *Brookes.*

187. Skull of a young Magot, or Barbary Ape.

Pithecus Inuus.

Presented by the late H. Cline, Sen., Esq., 1824.

Sub-Genus *PAPIO*.—(*Brisson.*)

188. Skeleton of an adult Mandrill.

Papio Mormon. (*Simia Sphinx*—*Lin*: *Choras*—*Buff*: *Mandrill*—*G. Cuv*:
Great Baboon—*Penn*:)

Fig:—*Gesner tab.* 253. *Buffon Supp*: vii. *pl.* 9. *Shaw Zool*: i. *pl.* 10.

Audeb: *Hist*: II. § II. *pl.* I.

Habitat:—Africa; on the Gold and Guinea Coasts.

Mus: *Brookes.*

189. Skull of a young Mandrill.

Papio Mormon.

Hunterian.

190. Skull of a young Mandrill.

Papio Mormon

This skull is in a spongy state from scrofula, an affection to which monkeys in general, are liable in this country.

Hunterian.

191. Skull of a Mandrill.

Papio Mormon.

The teeth of the upper and lower jaws, on one side, have been removed, and displayed separately, but being a young animal, the dentition is imperfect.

Hunterian.

192. A vertical section of a similar skull.

Showing the cavity of the cranium.

Papio Mormon.

Hunterian.

193. The corresponding section of No. 192.

Papio mormon.

*Hunterian.*Genus ATELES.—(*Geoffroy.*)*Dentition*.—Incisores $\frac{4}{4}$ Cuspidati $\frac{1}{1}$ Molares $\frac{6}{6}$

194. Skeleton of the Marimonda or White-bellied Ateles.

Ateles belzebuth--*Geoff*: (Marimonda--*Humb*: Coaita à ventre blanc--*Cuv*:)*Fig*.—*Geoff*: *Ann*: *Mus*: vii. *pl.* 16.*Habitat*.—The banks of the Orinoco.*Mus. Brookes.*

195. Skull of the Marimonda.

Ateles belzebuth.

Hunterian.

196. Skeleton of the Spider Ateles.

Ateles arachnoides—*Geoff*:*Fig*.—*Geoff*: *Ann*: *Mus*: xiii. *pl.* 9.*Habitat*.—Brazil?*Mus. Brookes.*Genus MYCETES.—(*Illiger.*)

197. Skull of the Mono Colorado or Red Howling Monkey.

Mycetes seniculus—*Ill*: (Simia seniculus—*Linn*: Mono Colorado—*Humb*:)*Fig*.—*Buff*: xv. *pl.* 5. *Supp.* vii. *pl.* 15. *Audeb*: *Hist.* v. § 1.*Habitat*.—Guiana, near Carthagena, the banks of the river Magdaleine, and Brazil.*Mus. Brookes.*Genus LEMUR.—(*Lin*:)Sub-Genus PROSIMIA.—(*Brisson.*)*Dentition*.—Incisores $\frac{4}{6}$ Cuspidati $\frac{1}{1}$ Molares $\frac{6}{5}$

198. Skull of the Ring-tailed Lemur.

Prosimia Catta—*Briss*: (Lemur Catta—*Linn*: Le Mococo—*Buff*:)

Fig.—Buff: xiii. *pl.* 11. F. Cuvier *Mam.* Audeb: *Hist.* *pl.* 4.

Habitat.—Madagascar.

Mus. Brit.

199. Skeleton of the Black-faced Mongooz or Woolly Macauco. Male.

Lemur nigrifrons—*Geoff*: (Lemur Mongoz—*Lin*: Mongous—*Buff*:)

Fig.—Buff: xiii. *pl.* 26. Shaw *Zool.* *pl.* 33. Audeb: *pl.* 1.

Habitat.—Madagascar.

Mus. Brookes.

200. Skull of the Black-faced Mongooz.

Lemur nigrifrons.

Habitat.—Madagascar.

Hunterian.

201. Skeleton of the White-fronted Mongooz.

(Lemur albifrons—*Geoff*: Maki aux pieds fauves—*Briss*:)

Fig.—Audeb: *Hist.* *pl.* 3. F. Cuvier *Mam.*

Habitat.—Madagascar.

Mus. Brookes.

202. Skull of the White-fronted Lemur.

Lemur albifrons.

Hunterian.

203 Skull of the White-fronted Lemur.

Lemur albifrons.

Hunterian.

Sub-Genus STENOPS.—(*Illiger.*)

Dentition.—Incisores $\frac{4}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{66}{55}$

204. Skeleton of the Slender Loris.

Stenops gracilis—*Ill*: (Loris Gracilis—*Geoff*: Loris—*Buff*:)

Fig.—Buffon xiii. *pl.* 30. Audeb: *Hist.* *pl.* 2. Shaw *Zool.* i. *pl.* 31.

Habitat.—The Island of Ceylon.

Hunterian.

Sub-Genus NYCTICEBUS.—(*Geoffroy.*)

Incisores $\frac{4}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{6\ 6}{5\ 5}$

205. Skull of the Slow Lemur of Bengal. *Incisores* $\frac{4}{6}$

Nycticebus Bengalensis—*Geoff*:

(*Lemur tardigradus*—*Lin*: *Loris paresseux*—*Cuv*: *Loris du Bengale*—*Buff*:)

Fig.—*Buff*: *Supp.* vii. *pl.* 36. *Audeb*: *Hist.* *pl.* 1. *Shaw Spec. Lin*: *t.* 5.

Habitat.—Bengal.

Hunterian.

ORDER III.—CARNASSIERS.—(*Cuvier.*)

ALIPEDS OR
CHIROPTERA.

Sub-Genus PTEROPUS.—(*Brisson.*)

Dentition.—Incisores conicæ $\frac{4}{4}$ Cuspidati $\frac{11}{11}$ Bicuspides $\frac{11}{11}$ Molares $\frac{4\ 4}{5\ 5}$

206. Skeleton of the great Black Roussette.

Pteropus edulis—*Geoff*: (*Pteropus Javanicus*—*Horsfield.*)

Fig.—*Horsfield's Zoological Researches.* No. iv.

Habitat.—Java, and the Moluccas.

Presented by Dr. Henderson, 1822.

207. Skull of a similar animal.

Pteropus edulis.

Hunterian.

208. Skull of a similar animal.

Pteropus edulis.

Hunterian.

209. Skull of a similar animal. From New Holland. ?

Pteropus edulis.

Presented by Sir E. Home, Bart.

Sub-Genus VESPERTILIO—(Lin:)

Dentition.—Incisores $\frac{4}{6}$ Cuspidati $\frac{11}{11}$ Bicuspides $\frac{33}{33}$ Molares $\frac{33}{33}$

210. Skeleton of the common Bat.

Vespertilio murinus—*Lin:* (La chauve Souris.)

Fig.—Buff: viii. *pl.* xx. Schreb: *tab.* 51.

Habitat.—Europe, and the eastern parts of Asia.

Presented by W. H. Clift.

INSECTIVORA.

Genus ERINACEUS.

Dentition.—Incisores $\frac{6}{2}$ Cuspidati $\frac{00}{00}$ Bicuspides $\frac{33}{44}$ Molares $\frac{44}{33}$

211. Skeleton of the common Hedgehog.

Erinaceus europæus—*Lin:* (Le Herisson—*Buff:*)

Fig.—Schreb: *tab.* 162. Buffon, viii. *pl.* 6. Penn: *Quad.* *pl.* 28. *f.* 3.

Habitat.—All the temperate parts of Europe.

Mus. Brookes.

212. Skull of a Hedgehog.

Erinaceus europæus.

Presented by the late H. Cline, Sen., Esq., 1824.

213. Skull of a Hedgehog.

Erinaceus europæus.

Presented by the late H. Cline, Sen., Esq., 1824.

214. Skull of a Hedgehog.

Erinaceus europæus.

Mus. Brit.

Genus SOREX.—(Linn:)

Dentition.—Incisores $\frac{2}{2}$ Cuspidati $\frac{00}{00}$ Bicuspides $\frac{55}{22}$ Molares $\frac{33}{33}$

215. The skull of the Black or Water Shrew. (For the teeth.)

Sorex Fodiens--*Pallas.* (Musaraigned'eau--*Dau:* *Sorexaquaticus*--*Lin:*)

Fig.—Daubenton, *l. c.* *pl.* 5. *f.* 2. Buffon, viii. *pl.* 10.

Habitat.—Europe, and Asia.

Hunterian.

Genus MYGALE.—(*Geoffroy.*)

216. Skull of the Desman or Musk Shrew. (*Imperfect*).

Mygale moscovitica—*Geoff.* (*Sorex moschatus*—*Lin.*: *Desman*—*Buffon.*)

Fig.—*Buffon* x. *pl.* 2. *Schreber*, *tab.* 159.

Habitat.—Southern Russia.

Hunterian.

Genus CHRYSOCHLORIS.—(*Desm.* :)

Dentition.—Incisores $\frac{2}{4}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Bicuspides $\frac{3\ 3}{3\ 3}$ Molares $\frac{6\ 6}{5\ 5}$

217. Skull of the Cape Chrysochlore.

Chrysochloris Capensis—*Desm.* :

Fig.—*Seba*, *Thes.* i. *tab.* 52. *Schreb.* : *tab.* 157.

Habitat.—The Cape of Good Hope.

Hunterian.

Genus TALPA.—(*Linn.* :)

Dentition.—Incisores $\frac{6}{8}$ Cuspidati $\frac{1\ 1}{0\ 0}$ Bicuspides $\frac{4\ 4}{4\ 4}$ Molares $\frac{3\ 3}{3\ 3}$

218. Skeleton of the common Mole.

Talpa europæa—*Lin.*: (*La Taupe*—*Buff.* :)

Fig.—*Buffon*, viii. *pl.* 12. *Shaw Zool.* i. *pl.* 117.

Habitat.—Europe generally, but not Ireland or Greece.

Presented by the late H. Cline, Sen., Esq., 1824.

219. Skeleton of the common Mole.

Talpa europæa.

Presented by T. Bull, Esq., 1822.

220. Skull of the common Mole. For the teeth.

Talpa europæa.

Hunterian.

221. Skull of the common Mole.

Talpa europæa.

Hunterian.

CARNIVORA.—Section PLANTIGRADA.

Genus URSUS.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Bicuspides $\frac{33}{44}$ Molares $\frac{33}{33}$

222. Skeleton of the Brown or common European Bear.

Ursus Arctos—*Lin*: Ours, *Buffon*.

Fig.—*Buffon*, viii. *pl.* 31. *Cuvier*, *Oss. Foss.* iv. *pl.* xxii. *f.* 1, 2.

Habitat.—The higher mountains and large forests of Europe, and the temperate and southern parts of Asia.

Mus. Brookes.

223. Skull of a small Brown Bear.

Ursus Arctos.

Mus. Brookes.

224. Bones of the fore-foot of a Brown Bear.

Ursus Arctos.

Hunterian.

225. Bones of the hind-foot of a Brown Bear.

Ursus Arctos.

Hunterian.

226. Skull of a young Brown Bear.

Ursus Arctos.

Presented by Mr. Stutchbury, 1820

227. Skull of a young Black Bear. For the teeth.

Ursus Niger Europæus. (Ours noir d'Europe—*Cuv* :)

Fig.—*Oss. Foss.* iv. *pl.* xx. *f.* 2, 3. *pl.* xxi. *f.* 1, 2. Cranium.

Habitat.—Europe.

Hunterian.

228. Skull of a female Black Bear. Three years old.

Ursus Niger Europæus.

Northern Land Expedition, 1822.

229. The claws of the fore-foot of a Black Bear.

Ursus Niger Europæus.

Presented by Mr. Stutchbury.

230. Skeleton of a small Polar Bear.

Ursus Maritimus—*Lin*: (*Ursus Albus*—*Brisson*. Ours Blanc—*Buff*.)

Fig.—*Buff*: *Supp.* iii. *pl.* 34. *Penn*: *Synop.* *pl.* 20. *f.* 1.

Cuv:—*Oss. Foss.* iv. *pl.* xx. *f.* iv. *pl.* xxi. *f.* iv. Cranium.

Habitat.—The coasts of the Polar Sea, principally the American.

Mus. Brookes.

231. Skull of a Polar Bear. (*Imperfect.*) For the teeth.

Ursus Maritimus.

Hunterian.

232. Skull of a Polar Bear.

Ursus Maritimus.

Presented by William Gaitskell, Sen., Esq., 1820.

233. Skull of a Polar Bear.

Ursus Maritimus.

Presented by Sir W. Blizard, 1812.

234. Skull of a Polar Bear. From Greenland.

Ursus Maritimus.

Mus. Brit.

235. Skull of a Polar Bear.

Ursus Maritimus.

Northern Land Expedition, 1822.

236. Skull of a Polar Bear.

Ursus Maritimus.

Hunterian.

237. Skull of a Polar Bear. From Hare Island, Baffin's Bay.

Ursus Maritimus.

Northern Expedition. Presented by Dr. Leach.

238. Skull of a Polar Bear.

Ursus Maritimus.

Hunterian.

239. Skull of a Polar Bear.

Ursus Maritimus.

Hunterian.

240. Skeleton of the Long-lipped Indian Bear.

Ursus labiatus—*Blainville*. (*Bradypus Ursinus*—*Shaw*.)

Fig.—Cuv: *Oss. Foss.* iv. *pl.* xxiii. *f.* 6. *Shaw*, Vol. i. *pl.* 47.

Habitat.—The mountainous districts of India.

This animal was an aged female, and had been alive in this country for many years. The uterus and one of the kidneys injected, are preserved in the gallery of the Museum.

Purchased 1828.

241. Skull of the Long-lipped Bear. Male.

Ursus labiatus.

Mus. Brookes.

242. Skull of a Bear from India.

Ursus Malayanus—*Raff*: *Var*: ?

Fig.—Horsfield's *Zool. Java.* iv. Cuv: *Oss.* iv. *pl.* xxiii. *f.* 6 of this skull.

Habitat.—India.

In the *Oss. Foss.* iv. *p.* 334, Cuvier notices this specimen in the following words:—"La tête du Museum des chirurgiens donnée pour celle de l'ours qui avait été pris pour un *paresseux (U: labiatus)* me paroît différer de celle de Java. Outre le plus grand espace entre les canines et la série continue des molaires, on voit que c'est surtout entre les apophyses orbitaires que le front y est bombé, et que la ligne de profil devient concave à la racine du nez," &c.

Presented by Sir E. Home, Bart.

243. Claws of the *Ursus labiatus*.

Hunterian.

244. Claws of the *Ursus labiatus*.

Hunterian.

245. Os Penis of a Polar Bear.

Ursus Maritimus.

Northern Expedition.

Genus PROCYON.—(*Storr.*)

Dentition.—Incisores $\frac{6}{6}$ Cuspidati $\frac{1}{1}\frac{1}{1}$ Bicuspides $\frac{3}{4}\frac{3}{4}$ Molares $\frac{3}{2}\frac{3}{2}$

246. Skeleton of the Racoon.

Procyon Lotor. (*Ursus Lotor*—*Lin.* :)

Fig.—Buffon, *tom* viii. *pl.* 43. Pennant, ii. 2

Habitat.—South America.

247. Skeleton of a Racoon.

Procyon Lotor.

Hunterian.

248. Skeleton of a Racoon.

Procyon Lotor.

Hunterian.

249. Skull of a Racoon.

Procyon Lotor.

Hunterian.

250. Os Penis of a Racoon.

Procyon Lotor.

Hunterian. ?

251. Os Penis of a Racoon.

Mus. Brit.

252. Os Penis of a Racoon.

Hunterian.

253. Os Penis of a Racoon.

Hunterian.

254. Os Penis of a Racoon.

Mus. Brit.

255. Os Penis of a Racoon.

Hunterian.

Genus NASUA—(*Storr.*)*Dentition* as in *Procyon*.

256. Skeleton of the Brown Coati.

Nasua Fusca. (*Viverra Quasje*—*Lin*: Coati Mondi—*Marcg* :)*Fig.*—Perrault, *Hist. des Anim. tom. ii. pl. 37.* Buffon, viii. *pl. 47, 48.*Schreb : *tab. 118.**Habitat.*—South America.*Hunterian.*

257. Skull of the Brown Coati.

Nasua Fusca.

Hunterian.

258. Skull of the Red Coati.

(Nasua Rufa—*Desm*: Coati Roux—*F. Cuvier.*)*Fig.*—*F. Cuvier, l. c.**Habitat.*—South America.

This animal died in the Menagerie at Exeter Change.

Purchased 1815.

Genus, CERCOLEPTES.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{5\ 5}{5\ 5}$

259. Skull of the prehensile-tailed Weasel or Potto.

Pottos Caudivolvulus—*Illiger.* (*Viverra caudivolvula*--*Lin*: Potot--*Buff* :Yellow Macauco—*Penn*: Potos—*Cuvier.* Kinkajou—*Desm* :)*Fig.*—Pennant, *Quad. pl. 16.* Schreb : *tab. 125.* Buff: *Supp. iii. pl. 51.**Habitat.*—Various parts of South America.*Hunterian.*

260. Skeleton of the Potto.

Pottos Caudivolvulus.

Mus. Brookes.

Genus MELES.

Incisores $\frac{6}{6}$ Cuspidati $\frac{1}{1}$ Molares $\frac{4}{6}$

261. Skeleton of the common Badger. Male.

Meles Vulgaris. [(Ursus Meles—*Lin*: Blaireau—*Buff*:)]

Fig.—Schreb: 142. Buffon, *Supp.* iii. *pl.* 49.

Habitat.—Europe.

Presented by W. H. Clift.

262. Skull of a Badger.

Meles Vulgaris.

Presented by Sir R. W. Vaughan, 1812.

263. Skull of a Badger.

Meles Vulgaris.

Presented by the late H. Cline, Sen., Esq., 1824.

264. Skull of a Badger.

Meles Vulgaris.

Presented by the late H. Cline, Sen., Esq., 1824.

Genus GULO.—(*Storr.*)

Incisores $\frac{6}{6}$ Cuspidati $\frac{1}{1}$ Molares $\frac{5}{6}$

265. Skull of a Wolverine. From Melville Island.

Gulo Wolverine. (Ursus luscus—*Lin*: Ursus Gulo—*var*: *Shaw*.

Hudson Bay Bear—*Bris*:)

Fig.—Penn: *Quad.* *pl.* 20. *f.* 2. Shaw, *Zool.* i. *pl.* 105.

Habitat.—The coasts of the Arctic Sea.

Northern Expedition, 1820.

266. Skull of a Wolverine.

Gulo Wolverine.

Hunterian.

267. Skull of a Wolverine.

Gulo Wolverine.

Northern Expedition.

268. Skull of the Glutton.

Gulo Vulgaris. (*Ursus Gulo*—*Lin*: *Meles Gulo*—*Boddaert*. *Glouton*—*Buff*:)

Fig.—*Cuv*: *Oss. Foss.* iv. *pl.* xxxviii. *Cran. &c.* *Schreb*: *tab.* 144.

Buff: *l. c.* *pl.* 48.

Habitat.—The shores of the Arctic Sea.

Presented by the late H. Cline, Sen., Esq., 1824.

RATELLUS.—(*F. Cuvier.*)

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{44}{44}$

269. Anterior portion of the jaws of the Ratel or Cape Weasel.

Gulo Ratel. (*Viverra mellivora*—*Lin*: *Viverra Capensis*—*Gm*:

Fizzler Weasel—*Pen*: *Blaireau Puant*—*Lacaille.*)

Fig.—*Schreb*: *tab.* 125. *Sparman, Act. Stockholm, 1777. tab.* 4. *f.* 3.

Habitat.—The Cape of Good Hope.

Presented by the late Henry Salt, Esq., 1811.

Section DIGITIGRADA.

Sub-Division 1.

Genus MUSTELA. Sub-Genus PUTORIUS.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{44}{55}$

270. Skeleton of the common Weasel.

Mustela Vulgaris—*Lin*: (*La Belette*—*Buff*:)

Fig.—*Schreb: tab.* 137. *A. Buffon, vii. pl.* 29. *f.* 1. *Ency. Method. t.* 84. *f.* 1.

F. Cuvier, Mam. Lithog.

Habitat.—Most of the temperate, and Northern parts of the Old World, and North America.

Mus. Brookes.

271. Skull of a common Weasel.

Mustela Vulgaris.

Presented by the late H. Cline, Sen., Esq., 1824.

272. Skull of a Weasel.

Mustela Vulgaris.

Mus. Brit.

273. Skull of the common Ferret.

Putorius Furo. (*Mustela Furo*—*Lin*: *Le Furet*—*Buff*:)

Fig.—Schreb: *tab.* 133. *Buff*: vii. *f.* 26.

Habitat:—Spain and Africa, originally.

Hunterian.

274. Skull of a common Ferret.

Putorius Furo.

Presented by the late H. Cline, Sen., Esq., 1824.

275. Skull of a common Ferret.

Putorius Furo.

Presented by the late H. Cline, Sen., Esq., 1824.

276. Skull of the common Ferret.

Putorius Furo.

277. Skull of a Polecat.

Putorius Vulgaris. (*Mustela Putorius*—*Lin*: *Putois*—*Buff*:)

Fig.—Schreb: *tab.* 131. *Buff*: vii. *pl.* 24. *Penn*: *Brit. Zool.*

Habitat.—The temperate parts of Europe.

278. Skull of a Polecat.

Putorius Vulgaris.

Mus. Brit.

279. Os Penis of a Polecat.

Putorius Vulgaris.

Mus. Brit.

280. Skull of an Ermine.

(*Ermine* is the name by which the animal is known in winter; *Stoat* in summer—at which season its colour differs.)

Putorius Erminea—*Cuv*: (*Mustela erminea*—*Lin*: *L'Hermine*—*Buff*:)

Fig.—Shaw, *Zool.* i. *tab.* 99.

Habitat.—Northern parts of Europe and Asia.

Presented by the late H. Cline, Sen., Esq., 1824.

281. Skull of an Ermine.

Putorius Erminea.

Hunterian.

282. Skeleton of the Alpine Polecat.

Putorius Alpinus—*Gebler*.*Fig.*—*Habitat.*—Principally the Altaica Mountains, near Reddersk.*Mus. Brit.*

283. Skull of the Mink.

Putorius Lutreola. (*Mustela Lutreola*--*Pallas*. *Lutra Minor*--*Erxleben*.)*Fig.*—*Pallas*, *Spic. Zool. tab.* 31. *Erxleb: Mem. Stock. tab.* 2.*Habitat.*—Finland, and the North-Eastern parts of Europe.*Presented by the late H. Cline, Sen., Esq., 1824.*

Sub-Genus MARTES.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{1}$ Molares $\frac{55}{66}$

284. Skull of a Marten. From the Himalayan Mountains.

Mustela flavigula.*Presented by Lieut. Colonel Finch, 1830.*

285. Skull of the Beech Marten.

(*Mustela Foina*—*Lin*: *La Fouine*--*Buff*.)*Fig.*—*Schreb: tab.* 129. *Buff: vii. pl.* 18. *Shaw, Zool.**Habitat.*—Europe, and Western Asia.*Presented by Dr. Richardson, 1822.*

286. Skull of a Beech Marten.

Mustela Foina.*Presented by Dr. Richardson, 1822.*287. Skull of the common Pine Marten. (*Imperfect*.)(*Mustela Martes*—*Lin*: *La Marte Commune*—*Buff*.)*Fig.*—*Buffon, vii. pl.* 22. *Schreb: tab.* 130. *Pennant, Brit. Zool.**Habitat.*—Great Britain, and the Northern parts of Europe.*Hunterian.*

288. Skeleton of a Pine Marten.

Mustela Martes.

Hunterian.

289. Skull of a Pine Marten.

Mustela Martes.

Presented by the late H. Cline, Sen., Esq., 1824.

290. Skull of the Pekan.

(Mustela Canadensis—*Lin*: Pekan—*Buff*: Pekan Weasel—*Penn*:)*Fig.*—Buffon, xiii. *pl.* 42. Schreb: *tab.* 134.*Habitat.*—Canada, and the United States.*Mus. Brookes.*Sub-Genus MEPHITIS.—(*Cuv*:)Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{44}{55}$

291. Skull of the Skunk. (Var. of the American Mephitic Weasel.)

Mephitis Americana—*Cuv*: (Viverra Mephitis—*Lin*: Viverra Striata—*Shaw*.)Mephitis Chilensis—*Geoff*: Le Chinche, *Buff*:)*Habitat.*—South America.*Presented by the late H. Cline, Sen., Esq., 1824.*

292. Skeleton of an American Mephitic Weasel. (Species uncertain.)

Mephitis. ?

This animal died in the Menagerie at Exeter Change, 1824.

Purchased.

Sub-Genus LUTRA.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{55}{55}$

293. Skull of an Otter.

Mustela Lutra—*Lin*: (Lutra Vulgaris—*Erxleb*: La Lutre—*Buff*:)*Fig.*—Schreb: *tab.* 126. A. Buffon, vii. *pl.* 11.*Habitat.*—Europe.*Presented by the late H. Cline, Sen., Esq., 1824.*

294. Skull of an Otter.

Mustela Lutra.

Presented by the late H. Cline, Sen., Esq., 1824.

295. Skull of an Otter.

Mustela Lutra.

Hunterian.

296. Skull of an Otter.

Mustela Lutra.

Hunterian.

DIGITIGRADA. Sub-Division 2.

Section 1.

Genus CANIS.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{66}{77}$

297. Skeleton of the Dingo or Australasian Dog.

Canis Familiaris Australasiæ—*Des* :*Fig.*—White's *Journal of a Voyage to New Holland.**Habitat.*—New Holland.

This animal died in the Menagerie at Exeter Change.

Presented by Sir E. Home, Bart.

298. Skeleton of an Italian Greyhound.

Canis familiaris Grajas—*Lin* : (Levrier—*Buff* :)*Fig.*—*Ency. Method. pl.* 89. *f.* 3. F. Cuvier, *Mam. Lithog.* xvi.*Presented by Sir A. Carlisle, 1827.*

299. Skull of a common Greyhound.

Canis familiaris Grajas.

Hunterian.

300. Skeleton of a large Newfoundland Spaniel.

Canis familiaris Extrarius—*Lin* :*Hunterian.*

301. Bones of the anterior extremity of a Newfoundland Spaniel.

Canis familiaris Extrarius.

Hunterian.

302. Bones of the posterior extremity of a Newfoundland Spaniel.

Canis familiaris Extrarius.

Hunterian.

303. Skeleton of a Spaniel.

Canis familiaris Extrarius.

Hunterian.

304. Skull of a Spaniel.

Canis familiaris Extrarius.

Presented by W. Clift.

305. Skull of a King Charles's Spaniel.

Canis Extrarius brevipilis—Lin: (Le Gredin—Buff:)

Fig.—Buff: v. pl. 19. f. 1.

Presented by W. H. Clift, 1827.

306. Bones of the right anterior extremity of a King Charles's Spaniel.

Canis Extrarius brevipilis.

Presented by W. H. Clift, 1827.

307. Os Penis of a Spaniel.

Presented by W. Clift.

308. Skeleton of a foetus of the Shepherd's Dog.

Canis familiaris Domesticus—Lin: (Chien de Berger—Buff:)

Fig.—Buff: v. pl. 28. Ency. Méthod. pl. 99. f. 1. Shaw, Zool. i. pl. 75.

Mus. Brookes.

309. Skull of a Mastiff.

Canis familiaris Anglicus—Gmel: (Chien Dogue de fort race—Buff:)

Fig.—Buff: v. t. 45. Ency. Méthod. pl. 101. f. 4. F. Cuvier, Mam. Lithog. xviii.

310. Os Penis of a Mastiff.

Hunterian.

311. Skull of a Wolf. Male.

Canis Lupus—Lin: (Le Loup—Buff:)

Fig.—Schreb: tab. 81 and 88. Buffon. pl. 1. Ency. Méthod. pl. 105. f. 3.

Shaw, Zool. i. pl. 75.

Habitat.—The continent of Europe, &c.

Presented by the late Sir T. Raffles, 1821.

312. Skull of a Wolf, in vertical section.

Canis Lupus.

Hunterian.

313. Skull of a Wolf. Male.

Canis Lupus

Presented by the late H. Cline, Sen., Esq., 1824.

314. Skull of a Wolf.

Canis Lupus.

Purchased 1812.

315. Skull of a White Wolf.

(Found on Melville Island, by C. Wakeham, Esq.)

Canis Albida.

Northern Expedition, 1820.

316. Skull of a Wolf.

Canis Lupus.

Mus. Brookes.

317. Skull of a Chacal or Jackal.

Canis aureus—*Lin*: (Canis Barbarus—*Shaw*. Le Chackal—*Buff*:)*Fig.*—F. Cuvier, *Mam. Lithog.* ii. *Ency. Méthod.* pl. 107. f. 3.*Buff*: *Sup.* vi. pl. 16.*Habitat.*—The warmer parts of Africa and Europe, and in Southern Asia.*Presented by Dr. Henderson, 1822.*

318. Skull of a Chacal or Jackal. From the Himalayan Mountains.

Canis aureus.

Presented by Lieut. Colonel Finch, 1830.

319. Skull of the common Fox.

Vulpes vulgaris. (Canis Vulpes—*Lin*: Renard—*Buff*:)*Fig.*—*Buffon*, vii. pl. 6. *Ency. Méthod.* pl. 106. f. 1 and 2.*Habitat.*—The Northern parts of the Old and New World.*Mus. Brookes.*

320. Skeleton of the common Fox.

Vulpes vulgaris.

Hunterian.

321. Skull of a Black Fox.

Vulpes vulgaris. Var.

Presented by the late H. Cline, Sen., Esq., 1824.

322. Skull of the Isatis or Arctic Fox. From North America.

Canis Lagopus—*Lin*: (Renard Blue—*Buff*:)

Fig.—*Ency. Méthod.* t. 106.f. 3. t. 107.f. 2. Bewick's *Quad*.

Habitat.—The Arctic Regions.

Presented by the late H. Cline, Sen., Esq., 1824.

323. Skull of the Arctic Fox.

Canis Lagopus.

Mus. Brookes.

324. Skull of the American Cross Fox.

Canis Decussatus—*Geoff*:

Habitat.—North America.

Collected by Dr. Richardson, Northern land expedition.

Presented 1822.

325. Skull of a Fox. From Bengal.

Vulpes Bengalensis.

Presented by Lieut. Colonel Finch, 1830.

326. Os Penis of a Fox.

Mus. Brit.

Genus VIVERRA.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{6}{6}$

327. Skeleton of the Indian Zibett.

Viverra Zibetha—*Lin*: (Le Zibet—*Buff*:)

Fig.—Schreb: t. 88.f. 2. Shaw, *Zool.* i. pl. 95. *Buff*: *Hist. Nat.* ix. pl. 31.

Habitat:—India, and also Africa, according to some writers.

Mus. Brookes.

Sub-Genus GENETTA.

328. Skeleton of the Genet, or Gray Weasel.

Genetta vulgaris (*Viverra Genetta*—*Lin*: *La Genetta*—*Buff*:)

Fig.—Shaw, *Zool.* i. *pl.* 96. Schreb: *tab.* 113. Buff: viii. *pl.* 58 and 59.

Habitat.—The Western parts of Asia.

Mus. Brookes.

329. Skull of a Genet. (For the Teeth.)

Genetta Vulgaris. Var. ?

Hunterian.

Genus MANGUSTA.—(*Cuv*:)

330. Skeleton of the Indian Ichneumon.

Mangusta Mungos. (*Herpestes Mungo*—*Desm*: *Viverra Mungo*—*Lin*:)

Fig.—Buff: xiii. *pl.* 19. Kæmpf: *Am. Ex. tab.* 567. Shaw, *Zool.* i. *pl.* 92.

Habitat.—India, and the Indian Islands.

Hunterian.

Genus SURICATA.—(*Desm*:)

331. Skeleton of the Surikate, or brown African Weasel.

Suricata Capensis. (*Viverra tetradactyla*—*Lin*: *Ryzæna*—*Illiger*.

Suricate—*Buff*:)

Fig.—Buffon, *l. c.* *pl.* 7. Shaw, *Zool.* i. *pl.* 93. *Ency. Méthod.* t. 85. f. 1. 4.

Habitat.—Southern Africa.

Presented to Mr. Brookes by Sir Jacob Astley, Bart.

Mus. Brookes.

DIGITIGRADA. Sub-Division 3.

Genus HYÆNA.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{55}{44}$

332. Skull of the striped Hyæna.

Hyæna vulgaris. (*Canis Hyæna*—*Lin*:)

Fig.—Buff: *Supp.* *pl.* 46. Kæmpf: *Am. Ex. t.* 407. f. 4. *Ency. Méthod.* t. 108. f. 1.

Habitat.—Barbary, Egypt, Abyssinia, Nubia, Syria, Persia, and India.

The animal was killed in the Himalayan Mountains in March, 1828, by F. Dawkins, Esq.

Presented by Lieut. Colonel Finch, 1830.

333. Skull of the striped Hyæna. (*Imperfe 2.*)

Hyæna vulgaris.

Hunterian.

Genus FELIS.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{44}{33}$

334. Skeleton of a male Lion. From Africa.

Felis Leo—*Lin*: (Le Lion—*Buff*:)*Fig.*—*Cuv*: *Oss. Foss.* iv. *pl.* xxxiii. *f.* 1, 2. *Cran.* *Schreb*: *tab.* 97. A and B.*Buff*: *l. c.* *pl.* 1 and 2. &c.*Habitat.*—Africa generally; and the Southern parts of Asia.*Hunterian.*

335. Skull of a Lion. For the Teeth.

Felis Leo.

Hunterian.

336. Skull of a Lion.

Felis Leo.

Hunterian.

337. Bones of the anterior extremity of a Lion.

Felis Leo.

Hunterian.

338. Bones of the posterior extremity of a Lion.

Felis Leo.

Hunterian.

339. The skeleton of the Puma or American Lion.

Felis concolor—*Lin*: (Tigris fulva—*Briss*: Le Congouax—*Buff*:)*Fig.*—*Schreb*: *tab.* 104. *Buff*: *l. c.* *pl.* 19. *Shaw*, *pl.* 89.*Habitat.*—The warm and temperate parts of America.

This animal was for some time alive, in the possession of Edmund Kean, Esq., by whom it was presented after death to Mr. Brookes.

Mus. Brookes.

340. Skull of a Lion. From the North Western part of Hindoostan.

Felis Leo.

Killed May 20, 1827, near Assund.

Presented by Lieut. Colonel Finch, 1830.

341. Skull of a Lion. From Northern Guzerat.

Felis Leo.

Brought from Bombay and presented by Dr. Henderson, 1822.

342. Vertical section of a Lion's skull, exposing the cerebral cavity, frontal sinus, &c.

Felis Leo.

Hunterian.

343. Portion of the upper jaw of a young Lion, in which the process of dentition is shown. The corresponding section of this jaw is preserved in spirit, in the Gallery.

Felis Leo.

Hunterian.

344. A very beautiful longitudinal section of the femur of a young Lion, to show its structure.

Felis Leo.

Hunterian.

345. Skeleton of a male Tiger. From India.

Felis Tigris—*Lin*: (Le Tigre—*Buff*:)

Fig.—Cuv: *Oss. Foss.* iv. pl. xxxiii. f. 5, 6. Schreb: t. 98. Buff: l. c. pl. 9.

Habitat.—Southern and central Asia.

Mus. Brookes.

346. Skull of a Tiger. From Bengal.

Felis Tigris.

Presented by Dr. Henderson, 1822,

347. Skull of a Tiger.

Felis Tigris.

Hunterian.

348. Skull of a Tiger. From India.

Felis Tigris.

Presented by the late Sir T. S. Raffles, 1821.

349. Skull of a Tiger.

Felis Tigris

Hunterian.

350. Skull of a Tiger. From Bengal.

Felis Tigris.

Presented by Sir W. Blizard, 1813.

351. Skull of a Tiger.

Felis Tigris.

Hunterian.

352. Skull of a Tiger.

Felis Tigris.

Hunterian.

353. Skull of a Tiger.

Felis Tigris.

Hunterian.

354. Skull of a Tiger.

Felis Tigris.

Hunterian.

355. Skull of a Tiger.

Felis Tigris.

Hunterian.

356. Skull of a Tiger.

Felis Tigris.

Hunterian.

357. Skull of a Tiger.

Felis Tigris.

Hunterian.

358. Skeleton of a small Indian Tiger.

Felis Tigris.

This animal died in the Menagerie at Exeter Change.

Purchased.

359. Skull of a White Tiger. From India.

Felis Tigris albus.

A painting in oil of the head of this animal, made in India by Robert Home, Esq. ; and also a water-colour drawing of the intire animal, were presented with the skull.

Presented by Sir E. Home, Bart., 1807.

360. Skull of a Tiger. From India.

Felis Tigris.

Presented by Lieut. Colonel Finch, 1830.

361. The lower jaw, and portion of the upper, of a young Tiger, showing the process of dentition.

Felis Tigris.

Hunterian.

362. Four tusks or cuspidati of a Tiger.

Felis Tigris

Hunterian.

363. A cuspidatus of a Tiger, in longitudinal section, for structure.

Felis Tigris.

Presented by Sir E. Home, Bart., 1807.

364. Skull of a black variety of the Leopard. Male.

Felis Leopardus niger.

Presented by Dr. Henderson, 1822.

365. Skull of a black variety of the Leopard. Female.

Felis Leopardus niger.

Presented by Dr. Henderson, 1822.

366. Skull of a black variety of the Leopard. Male. From Bengal.

Felis Leopardus niger.

Presented by Dr. Henderson, 1822.

367. Skeleton of a Leopard.

Felix Leopardus—*Lin* :*Fig.*—Buffon, ix. *pl.* 14. Schreb : *pl.* 101. Shaw, *Zool.* i. *pl.* 85.*Habitat.*—Central Africa; or, according to Cuvier (*Oss. Foss.* iv. p. 426.)
the Sunda Islands only.

Died in the Menagerie at Exeter Change.

Purchased.

368. Skull of a young Leopard, showing the growth of the permanent teeth.

Felis Leopardus.

Hunterian.

369. Skull of a Leopard, in vertical section. (*Imperfect.*)

Felis Leopardus.

Hunterian.

370. Claws of a Leopard, in longitudinal section, for structure.

Felis Leopardus.

Hunterian.

371. Skull of the common or domestic Cat. Female.

Felis Catus—*Lin*:*Presented by W. Clift, 1821.*

372. Skull of a Cat.

Felis Catus.

Presented by the late H. Cline, Sen., Esq., 1824.

373. Skull of a Cat.

Felis Catus.

Presented by the late H. Cline, Sen., Esq., 1824.

Section AMPHIBIA.

Genus PHOCA.

Incisores $\frac{6}{4}$ Cuspidati $\frac{11}{11}$ Molares $\frac{55}{55}$

374. Skeleton of a variety of the common Seal.

Phoca Vitulina?—*Lin*: (Phoque Commune—*Buff*:)*Fig.*—Buffon, xiii. pl. 35. Shaw, Zool. i. pl. 70. Home, Comp. Anat. iv. tab. xix.*Habitat.*—The North Seas.*Hunterian.*

375. Skull of a variety of the common Seal. (For the Teeth.)

Phoca Vitulina. Var.

Hunterian.

376. Two cuspidati of the bearded or great Seal.

Phoca barbata—*Lin*: (Grand Phoque—*Buff*:)*Fig.*—Buffon, Supp. vi. pl. 45. Ency. Méthod. t. 3. f. 1. Phil. Trans. xlvii. t. 5.*Habitat.*—The North Seas.*Mus. Brit.*

377. Skull of the small-clawed or Mediterranean Seal. (*Imperfect.*)

Incisores $\frac{4}{4}$ Cuspidati $\frac{11}{11}$ Molares $\frac{55}{55}$

Phoca Leptonyx—*Blainville*. (Phoca Monachus—*Lin* :

La Phoque à ventre blanc—*Buff*: Cowled Seal—*Penn* :)

Fig.—*Buff*: *Supp.* v. f. 4. Shaw, *Zool.* i. pl. 70, 71.

Hermann, in *Beschäft. der Berl. Naturf. Fr.* iv. tab. 12, 13.

Habitat.—The Adriatic Sea.

Purchased 1820.

378. Skull of a small-clawed or Mediterranean Seal.

Phoca Leptonyx.

Presented by the late Thomas Chevalier, Esq., 1814.

379. Skull of the gigantic Seal, or Anson's Sea Lion.

Incisores $\frac{4}{2}$ Cuspidati $\frac{11}{11}$ Molares $\frac{55}{55}$

Phoca leonina—*Lin*: (Mirounga Ansonii—*Gray*. Phoca Ansonii—*Desm* :

Bottle-nosed Seal—*Penn* :)

Fig.—Home, *Comp. Anat.* iv. tab. xviii.

Habitat :—The Pacific Ocean.

Purchased 1812.

380. Anterior portion of the jaws of the gigantic Seal.

Phoca leonina.

This is the original specimen brought to England by Lord Anson from the South Seas, and was formerly in the British Museum, where it was preserved for many years in the stuffed skin.

Mus. Brit.

381. Skull of the Leonine Seal. (Byron's Sea Lion.)

Phoca leonina.

(Phoca Byronii—*Blainville*. Mirounga Byronii—*Gray*.)

Habitat.—The neighbourhood of the Island of Tinian.

This is the original specimen brought from the Island of Tinian by Commodore Byron, and was for many years preserved in the British Museum.

Mus. Brit.

382. Skull of the Leonine Seal. (*Imperfect.*)

Phoca leonina.

Hunterian.

383. Skull of the Proboscis Seal or Sea Elephant.

Phoca leonina.

(Phoca Proboscidea.—*Desm.* Miouroung of the natives of New Holland.)*Fig.*—Péron and Lesueur, *Atlas pl.* 32. F. Cuvier, *Mem. Mus.* vi. t. 3. f. 1.*Habitat.*—The seas of New Holland.

Brought from the Northern coast of New Holland by Capt. Langham.

Mus. Brookes.

384. The under jaw of the Leonine Seal.

Phoca leonina.

Hunterian.

385. A cuspidatus (left side upper jaw) of the Leonine Seal.

Phoca leonina.

From South Georgia.

Purchased 1820.

386. A cuspidatus (upper jaw) of the Leonine Seal.

Phoca leonina.

Hunterian.

387. A cuspidatus (upper jaw) of the Leonine Seal.

Phoca leonina.

Hunterian.

388. A cuspidatus (right side, upper jaw) of a Leonine Seal.

Phoca leonina.

Presented by Sir W. Blizard, 1813.

389. A cuspidatus (right side under jaw) of a Leonine Seal.

Phoca leonina.

Presented by Sir W. Blizard, 1813.

390. A cuspidatus (from the lower jaw) of the Leonine Seal.

Phoca leonina.

Hunterian.

391. A cuspidatus (from the lower jaw) of the Leonine Seal.

Phoca leonina.

Hunterian.

392. A cuspidatus (from the lower jaw) of the Leonine Seal.

Phoca leonina.

Hunterian.

393. Incipient cuspidati (from the lower jaw) of a young Leonine Seal.

From the Patagonian coast.

Phoca leonina.

Hunterian.

394. Skull of a Falkland Island Seal.

Phoca Falklandica—*Shaw*. (*Otaria Falklandica*—*Desm.*)

Habitat.—The neighbourhood of the Falkland Islands.

The teeth on one side of both jaws are removed, and displayed separately.

395. The cuspidatus (from the upper and lower jaw) and a molaris of a Falkland Island Seal.

Phoca Falklandica.

Hunterian.

Genus TRICHECHUS.

Dentition.—Incisores $\frac{4}{0}$ Cuspidati $\frac{2}{0}$ Molares $\frac{4\ 4}{4\ 4}$

396. Skeleton of the Arctic Walrus.

Trichechus Rosmarus—*Lin.*: (*Equus Marinus*—*Ray*. *Le Morse*—*Buff.*)

Fig.—*Cuv.*: *Oss. Foss.* v. *pl.* xxxiii. *Skeleton*. *Marten*, *Spitz.* *pl.* P. f. b.

Buff.: *Hist. Nat.* xiii. *pl.* 54.

Habitat.—The Northern Seas.

Presented by Captain Sabine, 1823.

397. Skull of a Walrus.

Trichechus Rosmarus.

Northern Expedition, 1820.

398. Skull of a Walrus.

Trichechus Rosmarus.

Northern Expedition, 1820.

399. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

400. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

401. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

402. Skull of a Walrus, obtained from the Esquimaux, in Hudson's Straits.

Trichechus Rosmarus.

Presented by Dr. Richardson, 1819.

403. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

404. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

405. Skull of a Walrus.

Trichechus Rosmarus.

Northern Expedition, 1823. By the hands of Sir E. Home, Bart.

406. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

407. Skull of a Walrus.

Trichechus Rosmarus.

Northern Expedition, 1823. By the hands of Sir E. Home, Bart.

408. Skull of a Walrus. The skin of the animal, which accompanied the head, measured ten feet two inches in length.

Trichechus Rosmarus.

Northern Expedition. Presented 1824.

409. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

410. Section of the anterior part of the skull of a Walrus, showing the cuspidatus in its alveolar cavity.

Trichechus Rosmarus.

Hunterian.

411. A longitudinal section of the cranium of a Walrus, in which the bony tentorium, the cribriform plate of the ethmoid bone, &c., are shown.

Trichechus Rosmarus.

Hunterian.

412. A transverse section of the cranium of a young Walrus, showing the tentorium or bony septum interposed between the cerebrum and cerebellum.

Trichechus Rosmarus.

Hunterian.

413. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

414. Skull of a Walrus.

Trichechus Rosmarus.

Hunterian.

415. Anterior portion of the skull of a Walrus, with the cuspidati.

Trichechus Rosmarus.

Presented by the late H. Cline, Sen., Esq., 1824.

416. The lower jaw of a Walrus.

Trichechus Rosmarus.

Hunterian.

417. The cuspidatus or tusk of a Walrus.

Trichechus Rosmarus.

Hunterian.

418. The tusk of a Walrus.

Hunterian.

419. Tusk of a Walrus. *Purchased.*
420. Tusk of a Walrus. *Purchased.*
421. Tusk of a Walrus. *Brit. Mus.*
422. Tusk of a Walrus, exposed in the alveolar cavity. *Hunterian.*
423. Tusk of a Walrus. *Brit. Mus.*
424. A small tusk of a Walrus. *Brit. Mus.*
425. A tusk of a Walrus. *Brit. Mus.*
426. Tusk of a Walrus, with a portion of the alveolar process attached. *Hunterian.*
427. Tusk of a Walrus. *Hunterian.*
428. Tusk of a Walrus. *Hunterian.*
429. Tusk of a Walrus. *Brit. Mus.*
430. Tusk of a Walrus. *Brit. Mus.*
431. The tusk of a Walrus. *Brit. Mus.*
432. The tusks of a Walrus. From the western coast of North America. *Hunterian.*

433. A growing tusk of a Walrus, in its alveolar cavity.

Hunterian.

434. Section of a growing tusk of a young Walrus.

435. Longitudinal sections of the tusk of a Walrus.

Hunterian.

436. Longitudinal sections of the tusk of a Walrus.

Hunterian.

437. Transverse sections of the tusk of a Walrus.

Deprived of its earthy part, by acid, for the purpose of showing its laminated structure.

Hunterian.

438. A molaris from the right side of the upper jaw of a Walrus.

Hunterian.

439. Two molares from the lower jaw of a Walrus.

Hunterian.

440. The auditory bones,—incus, stapis, and malleus,—of a Walrus.
From North America.

Sent to England by Dr. Richardson, who accompanied Lieut. Franklin in the expedition of 1819.

Presented by Dr. Richardson, 1820.

441. The os penis of a large Walrus. Highly polished.

Hunterian.

442. The os penis of a Greenland Walrus.

Presented by Lieut. Colquhoun, 1823.

443. Os penis of a Walrus.

Hunterian.

444. Os penis of a Walrus. From Greenland.

Presented by Sir E. Home, Bart., 1823.

445. Os penis of a Walrus.

Presented by Mr. Portis, 1824.

446. Os penis of a Walrus.

Hunterian.

447. Os penis of a Walrus.

Hunterian.

448. Os penis of a Walrus.

Hunterian.

449. Os penis of a Walrus.

Hunterian.

450. Os penis of a young Walrus.

Northern Expedition. H.M.S. Isabella, 1818.

451. Os penis of a young Walrus.

Hunterian.

452. Os penis of a young Walrus. From Greenland.

Purchased.

453. Os penis of a Walrus.

Hunterian.

454. Pubic extremity of the os penis of a Walrus, in longitudinal section, to show its internal spongy texture.

Purchased.

Section MARSUPIATA. Sub-Division 1.

Genus DIDELPHIS.—(*Lin.* :)

Incisores $\frac{10}{8}$ Cuspidati $\frac{11}{11}$ Molares $\frac{22}{22}$

455. Skeleton of the Virginian Opossum.

Didelphis Virginiana—*Penn.* : (Sarigue des Illinois—*Buff.* :)

Fig.—*Buff.* : *Supp.* vi. *pl.* 33. *Ency Méthod.* *pl.* 264.

Shaw, *Zool.* i. *pl.* 107. *Mus. Lev.* t. 6.

Habitat.—Most of the hot and temperate parts of America.

Mus. Brookes.

456. Skull of a Virginian Opossum.

Didelphis Virginiana.

Hunterian.

457. Skull of a Virginian Opossum.

Didelphis Virginiana.

*Hunterian.*Genus DASYURUS.—(*Geoff.*)Incisores $\frac{8}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{6}{6}$

458. Skull of the Ursine Dasyurus.

Dasyurus Ursinus—*Geoff.*: (Didelphis Ursina—*Harris*.
The Devil of the Colonists.)*Fig.*—*Harris*, *Linn. Trans.* Vol. ix. pl. 19.*Habitat.*—Van Dieman's Land.*Hunterian.*

459. Skull of the Ursine Dasyurus. For the teeth.

Dasyurus Ursinus.

Hunterian.

460. Portions of the jaws of an Ursine Dasyurus. For the teeth.

Presented by Sir E. Home, Bart.

461. Skull of the Spotted Dasyurus.

Dasyurus Macrourus—*Geoff.*: (Viverra Maculata—*Shaw*.Spotted Marten—*Phillips*. Dasyure tacheté—*Peron and Lesueur*.)*Fig.*—*Peron and Lesueur*, *Atlas*, pl. 33. *Ency Méthod. Sup.* pl. 762.*Habitat.*—The neighbourhood of Port Jackson, New Holland.*Hunterian.*

462. Skull of the Viverrine Dasyurus.

Dasyurus Viverrinus—*Geoff.*: (Didelphis Viverrina—*Shaw*.Spotted Opossum—*Phillips*. Tapoa tafa or Tupha—native name.Dasyure tacheté—*Cuv.*.)*Fig.*—*White's Journal of a Voy. to New Holl.* p. 285. *Shaw*, *Gen. Zool.* i. pl. 111.*Habitat.*—The vicinity of Port Jackson, New Holland.

This is the skull of the original specimen brought to England by Mr. White, and described by John Hunter.

The stuffed skin is also preserved in the Museum.

Genus PHALANGISTA.—(*F. Cuv* :)

Incisores $\frac{6}{6}$ Cuspidati $\frac{2}{0}\frac{2}{0}$ Molares $\frac{6}{8}\frac{6}{8}$

463. Skeleton of the New South Wales or Vulpine Opossum.

Phalangista Vulpina. (*Didelphis Vulpina*—*Shaw*.)

Wha Tapoa Roo—native name. Le Bruno—*Vicq d'Azyr*.)

Fig.—*Shaw, Zool. i. pl. 110.* *Phillip's Voy. pl. 16.* *Bewick's Quad. i. pl. 376.*

Habitat.—Port Jackson.

Mus. Brookes.

464. Skull of the Vulpine Opossum.

Phalangista Vulpina.

Presented by the late H. Cline, Sen., Esq., 1824.

465. Skull of a Vulpine Opossum.

Phalangista Vulpina.

Hunterian.

466. Pelvis and marsupial bones of a Vulpine Opossum.

Phalangista Vulpina.

Hunterian.

467. Pelvis and marsupial bones of a Vulpine Opossum.

Phalangista Vulpina.

Presented by the late H. Cline, Sen., Esq., 1824.

Genus PETAURISTA.—(*Desm* :)

Incisores $\frac{6}{2}$ Cuspidati $\frac{0}{0}\frac{0}{0}$ Molares $\frac{8}{7}\frac{8}{7}$

468. Skeleton of the Petaurine Opossum, or Hepona Roo.

Petaurista Taguanoides—*Desm* : (*Didelphis Petaurus*—*Shaw*.)

Phalangista Petaurus—*Ill* : *Hepoona Roo*—of the natives.

Grand Phalanger Volant—*Cuv* :)

Fig.—*Shaw, Zool. i. pl. 112.* *White's Journal, p. 288.*

Habitat.—New South Wales.

Mus. Brookes.

Genus KANGURUS.

Incisores $\frac{6}{2}$ Cuspidati $\frac{0}{0}$ Molares $\frac{5}{5}$

469. Skeleton of an adult Kangaroo. Female.

Kangurus labiatus—*Geoff*: (Didelphis gigantea—*Lin*:
Halmaturus gigantea—*Ill*:)

Fig.—Phillip's *Voy.* pl. 10. White's *Journal of a Voy. to N. S. Wales.* p. 54.

Shaw, *Zool.* i. pl. 115.

Habitat.—New South Wales.

Mus. Brookes.

470. Skeleton of a young Kangaroo.

Kangurus labiatus.

Presented by Mr. Mornay, 1809.

471. Skull of an adult Kangaroo.

Kangurus labiatus.

Hunterian.

472. Skull of a Kangaroo. For the teeth.

Kangurus labiatus.

Purchased.

473. Skull of a Kangaroo. For the teeth.

Kangurus labiatus.

Hunterian.

474. Skull of a Kangaroo. (*Imperfect.*)

Kangurus labiatus.

Hunterian.

475. Skull of a young Kangaroo, showing the state of the teeth.

Kangurus labiatus.

Hunterian.

476. Skull of a young Kangaroo.

Kangurus labiatus.

Hunterian.

477. Deciduous and permanent teeth of a Kangaroo.

Kangurus labiatus.

Hunterian.

478. Skull and bones of the superior and inferior extremities (with the exception of the ossa humeri) of a Kanguroo.

Kangurus labiatus.

Purchased.

479. Skull and bones of the superior and inferior extremities of a Kanguroo.

Kangurus labiatus.

This animal died in the Menagerie at Exeter Change.

Purchased.

480. Lower jaw of a Kanguroo. For the teeth.

Kangurus labiatus.

Hunterian.

481. Skull of the red-necked Kanguroo.

Kangurus ruficollis—*Per: et Less:* (Macropus ruficollis—*Less:*

Kangourou à cou roux—*F. Cuv.:*)

Habitat.—The Island of Otaheite.

Mus. Brookes.

482. Skull of Le Bruyn's Kanguroo.

Kangurus Brunii--*Desm:* (Didelphis Brunii--*Lin:* JavanOpossum--*Penn.*)

Fig.—Le Bruyn, *Voyage des Ind.* 374. t. 213.

Habitat.—The Aroe Islands.

Hunterian.

Genus PHASCOLARCTOS.—(*Blainville.*)

Incisores $\frac{6}{2}$ Cuspidati $\frac{11}{00}$ Molares $\frac{55}{53}$

483. Bones of the trunk and extremities of the Koala, or New Holland Sloth.

Phascolarctus fuscus—*Blain:*

Fig.—*Cuv: Reg. Anim.* iv. pl. 1. *Ency. Méthod. Supp.* pl. 9. f. 4.

Habitat.—Principally the forests of New Holland, about fifty or sixty miles South-West of Port Jackson, to which place it was first brought in the year 1803.—*Vide* Sir E. Home's account in the *Phil. Trans.* 1808.

Presented by Sir E. Home, Bart.

The skull and phalanges are retained in the stuffed skin preserved in the Museum.

There are some original drawings of this animal, made in New Holland, in the Museum portfolio.

484. Skeleton of a young Koala. (Phalanges deficient.)

Phascolarctos fuscus.

From the banks of the river Nepean, New Holland.

Presented by Sir E. Home, Bart., 1804.

485. Skull of a Koala.

Phascolarctos fuscus.

Presented by Sir E. Home, Bart., 1804.

Sub-Division 2.

Genus PHASCOLOMYS.—(*Geoff.*)

Incisores $\frac{2}{2}$ Cuspidati $\frac{0}{0}$ Molares $\frac{5}{5}$

486. Skeleton of the Wombat.

Phascolomys Wombat—*Per: et Les:* (*Phascolomys Vombatus*—*Leach*.

Phascolomys fusca—*Desm:* *Didelphis ursina*—*Shaw*.

Wombat of the natives of New South Wales.)

Fig.—*Ency Méthod. Supp. t. 9. f. 1.* Leach, *Zool. Misc.* Vol. 2.

Cuv: Rég. Anim. iv. t. Skull.

Habitat.—King's Island, and near Port Jackson, New Holland.

This animal was in a living state at the Menagerie, Exeter Change.

Presented by Sir E. Home, Bart.

Original drawings, made from the living animal by Mr. Clift, are preserved in the Museum portfolio.

487. Skull of a Wombat. For the teeth.

Phascolomys Wombat.

Presented by Sir E. Home, Bart. 1807.

488. The lower, and part of the upper jaw of a Wombat.

Phascolomys Wombat.

Presented by Sir E. Home, Bart.

ORDER IV.—RODENTIA.

Sub-Division 1. with Clavicles.

Genus CASTOR.

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{4\ 4}{4\ 4}$

489. Skeleton of a young Beaver.

Castor Fiber—*Lin*: Le Castor or le Bievre—*Buff*:*Fig.*—*Buff*: *l.c. pl.* 36. F. Cuvier, *Mam. Lithog.* Penn, *Brit. Zool.* i. *pl.* 9.*Habitat.*—North America; and the vicinity of some of the larger European rivers, as the Rhine, the Rhone, the Danube, &c.*Mus. Brookes.*

490. Skull of a Beaver. For the teeth.

Castor Fiber.

Hunterian.

491. Skull of a Beaver. From Canada?

Castor Fiber.

Northern Land Expedition. Presented by Dr. Richardson.

492. Skull of a Beaver.

Castor Fiber.

Presented by the late H. Cline, Sen., Esq., 1824.

493. Skull of a Beaver.

Castor Fiber.

*Presented by the late H. Cline, Sen., Esq., 1824.*494. Skull of a young Beaver. From Hudson's Bay. (*Imperfect.*)

Castor Fiber.

The teeth are displayed separately.

Hunterian.

495. Skull of a Beaver, in longitudinal section.

Castor Fiber.

Hunterian.

496. The under jaw of a Beaver. For the Teeth.

Castor Fiber.

Hunterian.

497. The under jaw of a Beaver.

Castor Fiber.

*Hunterian.*Genus **MUS.**Sub-Genus **FIBER.**—(*Cuvier.*)Incisores $\frac{2}{2}$ Cuspidati $\frac{0}{0} \frac{0}{0}$ Molares $\frac{3}{3} \frac{3}{3}$

498. Skull of the Ondatra, or Musk Arvicola.

Fiber Zibethicus. (Mus Zibethicus—*Lin*: L'Ondatra—*Buff*:Rat Musqué de Canada—*Briss*: Musquash—*Josselyn.*)*Fig.*—Sarrazin, *Mem. de l'Acad. tab. II. f. 1. 2.* *Buff*: *Hist. Nat. x. pl. 1.**Habitat.*—Canada, and other parts of North America.*Presented by the late H. Cline, Sen., Esq., 1824.*Sub-Genus **ARVICOLA.**

499. Skull of the Water-Rat.

Arvicola Amphibius. (Mus Amphibius—*Lin*: Mus Aquatilis—*Ray.*Rat d'Eau—*Buff*: Wasser Maus—*Kramer.*)*Fig.*—Belon, *p. 35. fig. p. 36.* *Buff*: *Hist. Nat. vii. pl. 43.**Habitat.*—Europe, Northern Asia, and North America.*Presented by W. Clift.*

500. Skull of a Water-Rat.

Arvicola Amphibius.

Presented by the late H. Cline, Sen., Esq., 1824.

501. Skeleton and skulls of the short-tailed Field-Mouse.

Arvicola Arvalis. (Mus Campestris Minor—*Briss*: Mus Arvalis—*Lin*:Campagnol—*Buff*:)*Fig.*—*Buff*: *Hist. Nat. vii. pl. 47.* Shaw, *Zool. ii. pl. 136.**Habitat.*—Europe, and Northern Asia.

From the Forest of Dean—where whole plantations had been destroyed by them in consequence of their destruction of the young roots.

Presented by the late Sir J. Banks, Bart., 1813.

Sub-Genus HYDROMYS—(Geoff:)

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{2\ 2}{2\ 2}$

502. Skull of the Beaver Rat, or white-bellied Hydromys.

Hydromys leucogaster—Geoff: (Mus Pilorides?—Shaw.)

Fig.—Geoff: *l. c. tab.* 36. *fig.* B. C. D. *Ency. Méthod. Supp. pl.* 10. *f.* 3.

Habitat.—Van Dieman's Land.

Hunterian.

503. Skeleton of the Coypus or Racoonda.

Hydromys Coypus—Geoff: (Mus Coypus—Lin: Castor Coypus—Fisch:

Myopotamus Bonariensis—Commerson. Quoiuya—D'Azara.)

Fig.—Geoff: *Ann. Mus.* vi. *f.* 35. *Ency. Méthod. Supp.* x. *f.* 1.

Habitat.—Various parts of South America.

The fur of this animal is known to the furriers by the name of Racoonda, and is sometimes substituted for that of the Beaver.

Presented by Sir E. Home, Bart., 1822.

Sub-Genus MUS.

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{3\ 3}{3\ 3}$

504. Skeleton of the brown or Norway Rat.

Mus decumanus—Lin: (Mus Sylvestris et M. Norvegicus—Briss:

Mus Griseus—Penn: Le Pouc—Buff:)

Fig.—Shaw, *Zool.* ii. *pl.* 130. Buffon, *l. c. pl.* 27. *Ency. Méthod. pl.* 67. *f.* 9.

Habitat.—India and Persia originally, but the species now spread to every part of the civilized world.

Presented by Robert Willis, Esq., 1826.

505. Skeleton of a Norway Rat.

Mus decumanus.

Presented by the late H. Cline, Sen., Esq., 1824.

506. Skull of a Norway Rat.

Mus decumanus.

Presented by W. Clift, 1822,

507. Skull of a Norway Rat. For the teeth.

Mus decumanus.

Presented by W. Clift, 1821.

508. Skull of a Norway Rat.

Mus decumanus.

Presented by the late H. Cline, Sen., Esq., 1824.

509. Skull of a Norway Rat, with præternaturally elongated incisors, the consequence of a defect in their apposition.

Mus decumanus.

Presented by Dr. Leach, 1824.

510. Skull of a small Norway Rat, showing a similar redundancy in the growth of the incisors, from the same cause.

Mus decumanus.

Presented by Henry H. Carwardine, Esq., 1812.

511. Skull of a large common brown Rat.

Mus decumanus. (The teeth displayed.)

Hunterian.

512. Teeth from one side of the upper and lower jaw of a Rat.

Hunterian.

513. Skeleton of the black Rat.

Mus Rattus—*Lin*: (Mus Domesticus Major—*Ray*.)*Fig.*—Shaw, *Zool.* ii. *pl.* 130. Buffon, vii. *pl.* 36. *Ency. Méthod.* *pl.* 67. *f.* 4.*Habitat.*—Originally the same as the Norway Rat; this species, however, is now becoming rare in England from its destruction by the brown, or Norway variety.*Mus. Brookes.*

514. Skull of the Jullador Rat. From the East Indies.

Mus Indicus?—*Geoff*:*Habitat.*—India: particularly Pondicherry.*Presented by the late Dr. Patrick Russell.*

515. Portions of the upper and lower jaws of a Jullador Rat, the teeth of which are displayed.

Mus Indicus ?

Hunterian.

516. An incisor tooth from the upper jaw of a Rat

Which in its growth (from want of apposition) has been exerted until it has formed one perfect circle, and the segment of a second.

The following is a translation of a memorandum, in Spanish, which accompanied the specimen.

“I send it that you may admire the extraordinary tooth of this little animal. Believe me it is true, it was found in the Nazareth Garden, “(to which order I belong), near the Bar,” (entrance to the Port, and therefore much resembles the Nazareth convent at Melhinck), “and when “it was killed I took the tooth; I know not its virtues, nor have the “natives discovered them.”!

From Sir J. Banks, Bart., by the hands of Sir E. Home, Bart., 1813.

517. Skeleton of the common Mouse.

Mus Musculus—*Lin*: (Mus Domesticus Vulgaris—*Ray*.

Mus Sorex—*Briss*:)

Fig.—Shaw, *Zool.* ii. *pl.* 131. Buffon, *Hist. Nat.* vii. *pl.* 39. *Supp.* viii. *pl.* 20.

Habitat.—Europe, European Colonies, and most parts of the world.

Hunterian.

518. Skeleton of the common Mouse.

Mus Musculus.

Presented by the late H. Cline, Sen., Esq., 1824.

Genus DIPUS.

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{4\ 4}{4\ 4}$

519. Skeleton of the Egyptian Jerboa.

Dipus Sagitta—*Zimm*: (Mus Sagitta—*Pallas*. Mus Jaculus—*Lin*;

Daman—*Shaw's Travels in Barbary*. Gerbo ou Gerboise—*Buff*:)

Fig.—Shaw, *Zool.* ii. *pl.* 157. Buff: *Supp.* *pl.* 39, 40. Pallas, *l.c. tab.* 21.

Habitat.—Barbary, Egypt, and Western Asia.

Mus. Brookes.

Genus BATHYERGUS.—(*Brants.*)

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{3\ 3}{3\ 3}$ or $\frac{4\ 4}{4\ 4}$

520. Skeleton of the great Cape Mole, or coast Bathyergus.

Bathyergus Maritimus—*Ill*: (*Mus Maritimus*—*Lin*:

Arctomys Africana—*Lam*: *Spalax Maritimus*—*Güldenst.*

Grand Taupe du Cap—*Buff*: Land Mole of the Cape colonists.)

Fig.—Shaw, *Zool.* ii. *pl.* 140. *Buff*: *Supp.* vi. *pl.* 38. *Lamarck*, *l. c.* ii. *pl.* 1.

Habitat.—The Cape of Good Hope.

Presented by the late Thomas Keate, Esq.

521. Skull of the great Cape Mole.

Bathyergus Maritimus.

Presented by Sir E. Home, Bart., 1807,

With the following memorandum attached to it:—"This animal was
"met with by chance, when out riding. It turned upon my dog and
"fastened to his nose; it was not easily disengaged, but when the mole
"let go his hold, the dog easily killed him.—H. R."

522. Anterior portion of the jaws of a Cape Mole. For the teeth.

Bathyergus Maritimus.

Mus. Brit.

523. Skeleton of the lesser Cape Bathyergus.

Bathyergus Capensis. (*Mus Capensis*--*Pallas.* *Georychus Capensis*--*Ill*:

Taupe du Cap de Bonne Espérance—*Buff*: *Petit Rat-taup*—*Cuv*.)

Fig.—Shaw, *Zool.* ii. *pl.* 140. *Buff*: *l. c.* *pl.* 33. *Schreber*, *tab.* 204.

Thunberg, ii. *pl.* 2.

Habitat.—The Cape of Good Hope.

Mus. Brookes.

524. The teeth of the lesser Cape Bathyergus, displayed separately.

Hunterian.

Genus ARCTOMYS.—(*Gmel* :)

Incisores $\frac{2}{2}$ Cuspidati $\frac{0}{0} \frac{0}{0}$ Molares $\frac{5}{4} \frac{5}{4}$

Without cheek-pouches. Habits social.

525. Skeleton of the Alpine Marmot.

Arctomys Marmota--*Schreb* : (*Mus Alpinus*--*Pliny*. *Mus Marmota*--*Lin* :
Marmotte—*Buff* :)

Fig.—*Perrault*, *Hist des Anim.* iii. *pl.* 7. *Shaw*, *Zool.* ii. *pl.* 143.

Buffon, *Hist. Nat.* viii. *pl.* 28.

Habitat.—The Alps, Pyrenees, and other mountainous districts of Europe and Asia.

Mus. Brookes.

526. Skull of the Alpine Marmot.

Arctomys Marmota.

Mus. Brookes.

527. Skull of the Alpine Marmot.

Arctomys Marmota.

Hunterian.

Genus SPERMOPHILUS.—(*F. Cuv* :)

With large cheek-pouches. Habits solitary.

528. Skeleton of the Souslik, or variegated Siberian Marmot.

Arctomys Citillus—*Blumen*. (*Mus Citillus*—*Lin* : *Zisel*—*Buff* :

Arctomys Concolor—*Fisch*. Earless Marmot—*Penn* :)

Fig.—*Pallas*, *Gli.* p. 76. *Schreber*, *tab.* 211. A.B. *Buffon*, *Supp.* iii. *pl.* 31.

Habitat.—Parts of Germany, Russia in Europe, and Asia.

Presented by Sir A. Carlisle, 1826.

529. Skull of a Siberian Marmot.

Arctomys Citillus.

Hunterian.

Genus SCIURUS.—(Lin:)

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{5\ 5}{4\ 4}$

530. Skull of the great Squirrel, or Wood-Rat of Malabar.

Sciurus Maximus--*Schreb*: (Grand Ecureuil de la côte de Malabar--*Sonn*:)

Fig.—*Sonnerat*, *Voy*. ii. *pl*. 87. *Shaw*, *Zool*. Vol. ii. *pl*. 146.

Habitat.—Malabar.

Mus. Brit.

331. Skull of the Javan Squirrel.

Sciurus Bicolor—*Sparr*: (*Sciurus Javensis*—*Schreb*:)

Fig.—*Horsf. Zool. Res*: viii. *f*.

Habitat.—The East Indies: particularly in the Island of Java.

Hunterian.

532. Skull of the Hudson's Bay Squirrel.

Sciurus Hudsonius—*Pall*: (*Tamia Hudsonia*—*Less*:

Sciurus Cinereus—*Gm*:)

Habitat.—North America.

This is probably a variety of the gray or Carolina Squirrel.

Hunterian.

Genus PTEROMYS.—(Geoff:)

533. Skeleton of the American Polatouche, or Virginian flying Squirrel.

Pteromys Volucella--*Desm*: (*Sciurus Volucella*--*Pallas*. Polatouche--*Buff*:

Assapan—*F. Cuv*:)

Fig.—*Buff*: *Hist. Nat*. x. *pl*. 21. *a. b*. *Catesly's Carolina*, *pl*. 76.

Ency. Méthod. pl. 77. *f*. 4.

Habitat.—The temperate parts of North America, and some of the

Southern parts of the American Continent.

Mus. Brookes.

Section 2. With imperfect clavicles, or none.

Genus HYSTRIX.

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{4\ 4}{4\ 4}$

534. Skeleton of the crested Porcupine. Female.

Hystrix cristata—*Linn*: (Porc epic—*Buff*:)

Fig.—*Buffon, Hist. Nat.* xii. *pl.* 51. 52. *Shaw, Zool.* ii. *pl.* 1.

Ency. Méthod. 64. *f.* 3.

Habitat.—Africa originally, but naturalized in most parts of Southern Europe.

Mus. Brookes.

535. Skull of the crested Porcupine. Male. For the teeth.

Hystrix cristata.

Hunterian.

536. Skull of the crested Porcupine. The teeth displayed separately.

Hystrix cristata.

Hunterian.

537. Skull of the Canada Porcupine.

Hystrix dorsata—*Lin*: (*Hystrix Hudsonius*—*Briss*:

Hystrix pilosus Americanus—*Catesby*. *Urson*—*Buff*:

Porc épique velu—*Cuv*:)

Fig.—*Buffon*, xii. *pl.* 55. *Ency. Méthod.* *pl.* 65. *f.* 1.

Habitat.—Canada.

Northern Land Expedition. Presented by Dr. Richardson, 1822.

538. Skull of a Canada Porcupine. The teeth, in both jaws, (on one side), have been exposed in their alveolar cavities.

Hystrix dorsata.

Hunterian.

Genus **LEPUS**.—(*Lin* :)

Incisores $\frac{4}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{6\ 6}{5\ 5}$

539. Skull of a Hare.

Lepus timidus—*Lin* : (*Lièvre*—*Buff* :)

Fig.—Buffon, *Hist. Nat.* vi. *pl.* 38. Shaw, *Zool.* ii. *pl.* 162.

Habitat.—Europe : the Northern and temperate parts of the Old World.

Hunterian.

540. Skull of a Rabbit. Large-eared var :

Lepus Cuniculus—*Lin* : (*Lapin*—*Buff* :)

Fig.—Shaw, *Zool.* ii. *pl.* 162. Buffon, *Hist. Nat.* vi. *pl.* 50.

Habitat.—Originally Africa ? but by transportation, almost all parts of the world.

Presented by W. H. Clift, 1828.

541. Skull of a Rabbit.

Lepus Cuniculus.

Hunterian.

542. Skull of a young Rabbit. For the teeth.

Lepus Cuniculus.

Presented by W. Clift, 1822.

543. Skull of a Rabbit.

Lepus Cuniculus.

Presented by the late H. Cline, Sen., Esq., 1824.

544. Skull of a Rabbit.

Lepus Cuniculus.

Presented by the late H. Cline, Sen., Esq., 1824.

545. Skull of a Rabbit. Male. For the teeth.

Lepus Cuniculus.

Hunterian.

546. Skull of a Rabbit.

Lepus Cuniculus.

Presented by the late H. Cline, Sen., Esq., 1824.

547. Skull of a Rabbit, with singularly elongated incisors, in consequence of their non-apposition.

Lepus Cuniculus.

The animal was killed in Dorsetshire.

Presented by Sir E. Home, Bart. From Roger Wilbraham, Esq., 1807.

548. Skull of a Rabbit, with the incisors in a similar state.

Lepus Cuniculus.

Hunterian.

549. Skull of a Rabbit.

Lepus Cuniculus

In which the incisor teeth have acquired an unusual extent from non-apposition, the result of an accidental injury to the left incisor of the lower jaw. It will be observed, that the two auxiliary, or secondary incisors of the upper jaw are also greatly elongated, in consequence of the inferior incisors not coming in contact with them. This very satisfactorily explains the use of the small posterior teeth in the natural state of the jaws—that of protecting the palate from the cutting edges of the lower incisors in the rapid motions of the jaws during mastication.

Presented by Wm. Pretty, Esq., 1822.

550. Skull of a Rabbit, with a similar growth of the incisor teeth.

Lepus Cuniculus.

Presented by Dr. Leach, 1824.

551. Skull of a Rabbit, with the incisors in a similar state.

Lepus Cuniculus.

Presented by Hampton Weeks, Esq., 1821.

Genus HYDROCHÆRUS.—(*Erxleb.*)

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{4\ 4}{4\ 4}$

552. Skull of the Capybara.

The teeth from one side of both jaws are removed, and displayed separately.

Hydrochærus Capybara—*Erxleb.* (*Capybara Braziliensibus*—*Marcg.* :

Sus Hydrochærus--*Lin.* Cochon D'Eau--*Desmarch.* Cabiiai--*Buff.* :)

Fig.—Shaw, *Zool.* ii. pl. 127. *Buff.* : *Hist. Nat.* xii. pl. 49.

Habitat.—South America: particularly Brazil, near the shores of the larger rivers.

Hunterian.

Genus *CAVIA*.—(*Klein.*)

553. Skull of the Cobaya, or Guinea Pig.

Cavia Cobaya. (*Aperea* *Braziliensibus*—*Marcg*: *Cavia* *Aperea*—*Erxleb*:

Mus *Porcellus*--*Lin*: *Cochond'Inde*--*Buff*: *Variegated Cavy*--*Shaw*.)

Fig.—*Marcg*: *Braz. fig.* *Buff*: *Hist. Nat.* viii. *pl.* i

Habitat.—Brazil, Paraguay, &c. The domesticated variety has been introduced into almost all the temperate parts of the world.

Hunterian.

554. Skull of a Guinea Pig. For the teeth.

Cavia Cobaya.

Hunterian.

555. Skull of a Guinea Pig.

Cavia Cobaya.

Presented by the late H. Cline, Sen., Esq., 1824.

Genus *DASYPROCTA*.—(*Illig* :)

556. Skeleton of the long-nosed Cavy.

Dasyprocta *Aguti*—*Illig*: (*Mus* *Aguti*—*Lin*: *Agouti*—*Buff*:

Cuniculus *Americanus*—*Seba*. *Long-nosed Cavy*—*Penn* :)

Fig.—*Marcg*: *Brazil. fig.* *Seba*, *tab.* 172. *Buff*: *Hist. Nat.* viii. *pl.* 50.

Habitat.—South America: particularly Guiana and Paraguay.

Hunterian.

557. Skull of the Agouti, or long-nosed Cavy.

Dasyprocta *Aguti*. *Var.*

Hunterian.

558. Skull of the Aguti, or Java Hare.

Dasyprocta *leporina* (*Mus* *leporinus*—*Lin*: *Cuniculus* *Javensis*—*Briss* :)

Habitat.—The Islands of Java, and Sumatra.

Hunterian.

559. Skull of the Aguti, or Java Hare.

Dasyprocta *leporina*.

In this specimen, the teeth have been removed from one side of both jaws, and displayed separately.

Hunterian.

560. Skull of the Patagonian Cavy.

Dasypsecta Patachonica—*Desm*: (*Cavia Patachonica*—*Shaw*.)

Lièvre Pampa—*D'Azara*. Lièvre de la terre des Patagons—*Byron*.)

Fig.—Penn: *Quad. pl.* 68. *Shaw, Zool.* ii. *pl.* 165.

Habitat.—Patagonia.

This species in its general configuration, resembles much more nearly the *Leporidae* than any other of this genus.

Presented by Sir E. Home, Bart., 1807.

Genus CÆLOGENUS.—(*F. Cuvier*.)

561. Skull of the Brown Paca. The teeth displayed separately.

Cælogenus subniger—*F. Cuv*: (*Paca Braziliensibus*—*Marcg*:

Paca, male—*Buff*:)

Fig.—*Buff*: *Supp.* iii. *pl.* 35. *F. Cuv*: *Ann. du Mus.* x. *pl.* 9.

Habitat.—South America, and the Antilles.

Hunterian.

562. Skull of the Yellow Paca; a variety of the former.

Cælogenus fulvus--*F. Cuv*: (*Cuniculus Paca*—*Briss*: *Paca femelle*--*Buff*:)

Fig.—*Buff*: *Hist. Nat.* x. *pl.* 43. *Ency. Méthod.* *pl.* 65. *f.* 4.

Habitat.—South America.

Presented by J. Broderip, Esq., 1828.

ORDER V.—EDENTATA.

Section EDENTATA TARDIGRADA.

Genus BRADYPUS.

Incisores $\frac{0}{0} \frac{0}{0}$ Cuspidati $\frac{0}{0} \frac{0}{0}$ Molares $\frac{5}{4} \frac{5}{4}$

563. Skeleton of the three-toed Sloth or Ai.

Bradypus tridactylus—*Lin*: (*Ai s. Ignavus*—*Marcg*:)

Fig.—*Shaw, Zool.* ii. *pl.* 45. *Cuv*: *Oss. Foss.* v. *pl.* 4, 5, 7.

Buff: xiii. *pl.* 5 and 6. *Pen*: *Quad.* *pl.* 91.

Habitat.—South America.

These animals vary considerably in colour, and in consequence, some of the variations have been treated as distinct species.

Presented to Mr. Brookes by Professor Temminck.

Mus. Brookes.

564. The skull of a three-toed Sloth. For the teeth.
Bradypus tridactylus.

Hunterian.

Section EDENTATA EFFODIENTIA.—(*Ill* :)

Genus DASYPUS.—(*Lin* :)

Incisores $\frac{0}{0}$ Cuspidati $\frac{0}{0}$ Molares $\frac{8}{8}$

565. Skeleton of the nine-banded Armadillo.

Dasypos Pebas—*Desm* : (*Dasypos Novemcinctus*—*Lin* :

Armadillo Brasilianus—*Briss* : Cachicame ou tatou à neuf bandes—*Buff* :

Tatu Peba—*Marcg* :)

Fig.—*Cuv* : *Oss. Foss.* v. *pl.* 10. *Ency. Méthod.* t. 27. *f.* 1 and 2.

Buff : *Hist. Nat.* x. *pl.* 37.

Habitat.—South America.

This animal was caught at Pernambuco, and presented to Mr. Brookes by — Street, Esq.

Mus. Brookes.

566. Skull of an Armadillo. Species uncertain.

Dentition.—Incisores $\frac{0}{0}$ Cuspidati $\frac{0}{0}$ Molares $\frac{9}{10}$ $\frac{9}{10}$

Dasypos ?

Mus. Brit.

567. The bony carapace of a large Armadillo.

Dasypos Novemcinctus ?

Mus. Brit.

568. The bony carapace of a smaller Armadillo. In section.

Dasypos Novemcinctus.

Hunterian.

Genus ORYCTEROPUS.—(*Geoff* :)

Incisores $\frac{0}{0}$ Cuspidati $\frac{0}{0}$ Molares $\frac{7}{6}$ $\frac{7}{6}$

569. Skeleton of the Cape Ant-eater.

Orycteropus Capensis—*Geoff* : *Ill* : *Cuv* : &c.

(*Myrmecophaga Capensis*—*Lin* : *ed Gmel* :

Cochon de terre—*Buff* :)

Fig.—*Cuv* : *Oss. Foss.* v. *pl.* 12. *Buff* : *Supp.* vi. *pl.* 31.

Habitat.—South Africa, near the Cape.

Purchased 1828.

Genus MYRMECOPHAGA.—(*Lin* :)

Teeth, none.

570. Skeleton of the Tamandua, or South American Ant-eater.

Myrmecophaga Tamandua—*Cuv* : (*Tamanduai Braziliensibus*—*Marcg* :

Myrmecophaga Tetradactyla et Tridactyla—*Lin* :)

Fig.—*Cuv* : *Oss. Foss.* v. *pl.* 9. *Shaw, Zool.* i. *pl.* 50.

Habitat.—South America.

Mus. Brookes.

571. One of the claws from the anterior extremity of the Jubata, or great Ant-eater of South America.

Myrmecophaga Jubata—*Lin* :

Hunterian.

Genus MANIS.—(*Lin* :)

Teeth, none.

572. The scales of the short-tailed Manis or Pangolin.

Manis pentadactyla—*Lin* : (*Manis Macroura*—*Desm* :

Manis Brachyura—*Errleb* : *Grand Lezard Ecaillé*—*Perrault*.

Pangolin à queue Courte—*Cuv* :)

Fig.—*Cuv* : *Oss. Foss.* v. *pl.* 8. *Seba, Thes.* i. *tab.* 53. *Perrault, Anim.* 3. *f.* 17.

Habitat.—Bengal, and the Indian Islands.

Hunterian.

573. Skeleton of a young long-tailed or African Manis.

Manis Longicaudata—*Geoff* : (*Pangolin à longue queue*—*Cuv* :

Manistetractyla--*Lin* : *Lezard de Clusius*--*Perr* : *Phatagin*--*Buff* :)

Fig.—*Buff* : *Hist. Nat.* x. *pl.* 35. *Shaw, Zool.* i. *pl.* 55. *Penn* : *Quad.* f. 94.

Habitat.—Central Africa.

Presented to Mr. Brookes by Professor Temminck.

There is a figure of this, or a very similar species given in Marsden's
“ Sumatra.”

Mus. Brookes.

574. The horny imbricated skin of an African Manis.

Manis Longicaudata.

Hunterian.

Genus ORNITHORHYNCHUS.—(*Blumen* :)

Incisores $\frac{0}{0}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{2\ 2}{2\ 2}$

575. Skeleton of the Rufous Ornithorhynchus, or duck-billed Platypus of New Holland.

Ornithorhynchus Rufus—*Leach*. (Platypus Anatinus—*Shaw*.)

Ornithorhynchus Paradoxus—*Blum*: Water Mole of the Colonists.)

Fig.—*Blumenbach*, *Abbild*, *tab.* 41. *Cuv*: *Oss. Foss.* v. *pl.* 14.

Peron, *pl.* 34. *Home*, *Comp. Anat.* ii. *tab.* 58, 59, 60.

Habitat.—New Holland.

Dr. Leach, in the *Zool. Miscell.* Vol. ii. *p.* 136, observes, that among other peculiarities, the Ornithorhynchus fuscus differs from the O. Rufus in having the apertures of the nostrils more terminal, and the anterior nails or claws more acuminate.

Presented by W. Clift.

576. Skull of the Ornithorhynchus. From New Holland.

Ornithorhynchus paradoxus.

Presented by Sir E. Home, Bart., 1807.

577. Skull of the Ornithorhynchus.

Ornithorhynchus paradoxus

In which the side of the cranium is removed to expose the bony falx.

Presented by Sir E. Home, Bart., 1807.

ORDER VI.—PACHYDERMA.

Section PROBOSCIDA.

Genus ELEPHAS.—(*Lin* :)

Incisores or Tusks $\frac{2}{0}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{11}{11}$

578. Skull of a male Elephant. From Malacca.

Elephas Indicus—*Cuv*: (Elephas maximus—*Lin* :)

Fig.—*Cuv*: *Menag. du Mus.* *Cuv*: *Oss. Foss.* i. *pl.* 1, 4, 10, 12.

Habitat.—Southern Asia, and the large Indian Islands.

Presented by Dr. Henderson, 1822.

579. Skull of a female Elephant. From Malacca.

Elephas Indicus.

Presented by Dr. Henderson, 1822.

580. Skull of a male Asiatic Elephant.

Elephas Indicus.

Hunterian.

581. Skull of a large male Asiatic Elephant.

Elephas Indicus.

Hunterian.

582. Skull of a male Asiatic Elephant.

Elephas Indicus.

Hunterian.

583. Skull of a female Asiatic Elephant.

Elephas Indicus.

Hunterian.

584. Skull of a male Asiatic Elephant.

Elephas Indicus.

Hunterian.

585. Skull of a male Asiatic Elephant.

Elephas Indicus.

Hunterian.

586. Skull of a young male Asiatic Elephant. The tusks not visible.

Elephas Indicus.

Hunterian.

587. Skull of a young male Asiatic Elephant.

Elephas Indicus.

Hunterian.

588. Skull of a young male Asiatic Elephant.

Elephas Indicus.

Hunterian.

589. Skull of a young Asiatic Elephant.

Elephas Indicus.

Hunterian.

590. Skull of a foetal Asiatic Elephant.

Elephas Indicus.

*Presented by Dr. Henderson, 1822.*591. Skull of a female Asiatic Elephant. (*Imperfect.*)

Elephas Indicus.

*Hunterian.*592. Skull of a male Asiatic Elephant. (*Imperfect.*)

Elephas Indicus.

*Hunterian.*593. Skull of a male Asiatic Elephant. (*Imperfect.*)

Elephas Indicus.

Hunterian.

594. The lower jaw of a male Asiatic Elephant.

Elephas Indicus.

Hunterian.

595. The lower jaw of an Asiatic Elephant.

Elephas Indicus.

Hunterian.

596. Half the lower jaw of an Asiatic Elephant.

Elephas Indicus.

Presented by Dr. Henderson, 1822.

597. Corresponding half of ditto.

Elephas Indicus.

Presented by Dr. Henderson, 1822.

598. The lower jaw of an Asiatic Elephant.

Elephas Indicus.

Hunterian.

599. Half of the lower jaw of an Asiatic Elephant.

Elephas Indicus.

Hunterian.

SECTIONS, &c.

600. A vertical section of the cranium of a young Elephant

In which the cellular structure between the outer and vitreous tables of the skull is well shown; the lamina cribrosa of the os ethmoides, and the os turbinatum, are also exposed.

Elephas Indicus.

Hunterian.

601. A section of the os nasi of an Elephant, for the cells.
Hunterian.
602. A similar section of the os nasi of an Elephant.
Mus. Brit.
603. Five transverse sections of the left ulna of an Elephant, at its superior extremity,
Some of which show, in a most beautiful manner, the cancellated structure of the interior.
Hunterian.
604. A transverse section of the left os humeri of an Elephant, showing a similar structure.
Hunterian.
605. A longitudinal section of the superior part of the right os femoris of a young Elephant, for structure.
Hunterian.
606. The corresponding section of ditto.
Hunterian.
607. A longitudinal section of the inferior extremity of the os femoris of a young Elephant, for structure.
Hunterian.
608. The corresponding section of ditto.
Hunterian.
609. A longitudinal section of the superior part of the right os femoris of a young Elephant, for structure.
Hunterian.
610. The corresponding section of ditto.
Hunterian.
611. A longitudinal section of the same os femoris, at its inferior extremity, for structure.
Hunterian.
612. The corresponding section of ditto.
Hunterian.

613. A dissection of the internal ear of an Asiatic Elephant,

In which are exhibited the course of the meatus auditorius externus, the membrana tympani, and the chain of auditory bones, with its attachment to the membrane. The bony portion of the Eustachian tube, and the mastoid cells are also exposed.

A figure of this preparation is given in Sir E. Home's paper in the *Philos. Transactions*.

Hunterian.

614. The auditory bones of a young Elephant, three years old.

The animal was purchased by the College in the year 1810, for the purpose of dissection.

TEETH.

615. Tusk of an Elephant, curiously wreathed.

This specimen is figured and described in Grew's *Musæum Regalis Societatis*. 1681. p. 31. "A spiral or wreathed tusk of an Elephant. "Presented from the Royal African Company by Thomas Crispe, Esq. "It is twisted or wreathed from the bottom to the top with three circum-
"volutions, standing between two straight lines. 'Tis also furrow'd by
"the length. Yet the furrows surround it not, as in the horn of the Sea
"Unicorn; but run parallel therewith. Neither is it round, as the said
"horn, but somewhat flat. The top very blunt." *Fig. tab. 4.*

Mus. Brit.

616. A similar tusk.

Mus. Brit.

617. Tusk of an Elephant, with considerable curvature.

Hunterian.

618. A similar tusk.

Hunterian.

619. A pair of Asiatic Elephant's tusks.

Presented by the late Sir T. Raffles, 1821.

620. A pair of smaller Asiatic Elephant's tusks.

Presented by the late Sir T. Raffles, 1821.

621. A pair of Asiatic Elephant's tusks.

Presented by the late Sir T. Raffles, 1821.

622. A pair of Asiatic Elephant's tusks.

Presented by the late Sir T. Raffles, 1821.

623. A pair of tusks of a young Asiatic Elephant.

Presented by Mrs. M. A. Robinson, 1811.

624. The tusk of an Asiatic Elephant.

Presented by the late Sir T. Raffles, 1821.

625. The tusk of an Asiatic Elephant.

Presented by the late Sir T. Raffles, 1821.

626. A transverse section of an Elephant's tusk,

Which, having undergone decomposition from long exposure, is partially separated into its component lamina.

Mus. Brit.

627. Another portion of an Elephant's tusk, undergoing a similar change.

Mus. Brit.

628. A portion of the superior maxilla of an Asiatic Elephant (left side),

In which the molaris is exposed in the alveolar cavity.

Hunterian.

629. The corresponding half of the lower jaw of the same animal.

The molaris similarly exposed.

Hunterian.

630. Half of the lower jaw (left side) of a young Asiatic Elephant,

Showing the growing molaris in its alveolar cavity.

Hunterian.

631. Lower jaw of an Asiatic Elephant, in section, to exhibit the growth of the teeth.

Presented by Dr. Henderson, 1822.

632. A molaris from the upper jaw of an Asiatic Elephant.

Presented by Dr. Henderson, 1822.

633. A molaris from the lower jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
634. A molaris from the upper jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
635. A molaris from the lower jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
636. A molaris from the upper jaw of an Asiatic Elephant,
Showing the shedding, or deciduous tooth.
Presented by Sir E. Home, Bart.
637. A molaris from the upper jaw of an Asiatic Elephant.
Hunterian.
638. A molaris from the lower jaw of an Asiatic Elephant.
Mus. Brit.
639. A molaris from the upper jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
640. A molaris from the lower jaw of an Asiatic Elephant. Much worn.
Presented by Dr. Henderson, 1822.
641. A large molaris from the upper jaw of an Asiatic Elephant.
Presented by Mrs. Robinson, 1811.
642. The corresponding molaris of the same jaw.
Presented by Mrs. Robinson, 1811.
643. A molaris from the lower jaw of an Asiatic Elephant.
Hunterian.
644. A molaris from the lower jaw of an Asiatic Elephant.
Mus. Brit.
645. A molaris from the lower jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.

646. A molaris from the lower jaw of an Asiatic Elephant,
Showing the first effects of attrition against the upper tooth.
Presented by Dr. Henderson, 1822.
647. A molaris from the lower jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
648. A molaris from the upper jaw of a young Asiatic Elephant.
Presented by Dr. Henderson, 1822.
649. A growing molaris from the upper jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
650. A growing molaris from the upper jaw of an Asiatic Elephant.
Presented by Dr. Henderson, 1822.
651. A molaris from the upper jaw of a young Asiatic Elephant.
Hunterian.
652. A molaris from the upper jaw of a young Asiatic Elephant.
Presented by Dr. Henderson, 1822.
653. A molaris from the lower jaw of a young Asiatic Elephant.
Presented by Sir E. Home, Bart., 1807.
654. A molaris from the upper jaw of a young Asiatic Elephant.
Presented by Dr. Henderson, 1822.
655. The corresponding molaris of the same animal.
Presented by Dr. Henderson, 1822.
656. A molaris in a carious state from the upper jaw of an Asiatic Elephant, extracted during life !
Presented by the late H. Cline, Sen., Esq., 1824.

The animal from which this, and the succeeding molaris were removed, was in the employ of the East India Company, and it had been observed for a considerable time previous to their extraction, to show signs of pain, and restlessness, and to refuse its food ; these circumstances were

particularly noticed by those who had the care of it, from its being previously a very docile and tractable animal. The cause, however, of this apparent change in its disposition had never suggested itself, until a medical officer pointed it out, and offered to remove it, if the animal were sufficiently secured to prevent any accident to the operator, which might otherwise occur from the state of irritation induced by the pain it appeared to be suffering. This being accomplished, a strong ligature was applied to the exposed portion, and the extraction became a matter, rather of novelty than difficulty; the decayed condition of the fangs allowing them to maintain but a slight attachment to the jaws.

The examination of this tooth sufficiently explains the cause of the difficulty of mastication. The fangs in a state of caries, had lost their necessary fixture in the alveolar cavity; thus, allowing the body of the tooth to fall obliquely from its natural level, the external bony portion or crusta petrosa, was brought into contact with the opposite tooth:—the result has been, by an imperfect trituration, an undue wearing of that part, instead of the extremities of the enamelled denticuli; which, by the circumstance mentioned, were completely thrown out of contact.

657. A molaris extracted from the lower jaw of the same Elephant.
The fangs are intirely destroyed.

Presented by the late H. Cline, Sen., Esq., 1824.

658. A molaris from the upper jaw of an Asiatic Elephant.

Presented by Dr. Henderson, 1822.

659. Portion of a growing molaris from the upper jaw of a young Asiatic Elephant.

Hunterian.

660. The deciduous or shedding tooth of a young Asiatic Elephant, from the lower jaw.

Hunterian.

661. The shedding tooth of a young Asiatic Elephant, lower jaw.

Hunterian.

662. A vertical section of a molaris from the lower jaw of an Asiatic Elephant. Polished.

Presented by Sir E. Home, Bart., 1807.

663. The corresponding section of ditto. Unpolished.

Presented by Sir E. Home, Bart., 1807.

664. A vertical section, unpolished, of a molaris from the upper jaw of an Asiatic Elephant.

Hunterian.

665. A molaris of a young Asiatic Elephant, in vertical section.

Presented by Sir E. Home, Bart., 1807.

666. An horizontal section of a molaris from the lower jaw of an Asiatic Elephant.

Presented by Dr. Henderson, 1822.

667. An horizontal section of a molaris from the lower jaw of an Asiatic Elephant.

Hunterian.

668. An horizontal section of a molaris from the lower jaw of an Asiatic Elephant. Polished.

Hunterian.

669. A tray containing the separate denticuli of a molaris of an Asiatic Elephant. Upper jaw.

Presented by Dr. Henderson, 1822.

670. A tray of separate denticuli of an Asiatic Elephant.

Presented by Dr. Henderson, 1822.

671. A tray of separate denticuli of an Asiatic Elephant.

Presented by Sir E. Home, Bart., 1807.

672. A tray of separate denticuli from the alveolar cavity of the lower jaw of a foetal Asiatic Elephant.

Presented by the late Sir T. Raffles, 1822.

673. The skull of a male African Elephant.

Elephas Africanus—*Cuv*: (Elephas Maximus—*Lin*:)

Fig.—*Cuv*: *Oss. Foss.* i. *pl.* 2. *f.* 3. *pl.* 5. *f.* 1. &c. *Shaw, Zool.* i. *pl.* 63.

Mus. Brookes.

674. The lower jaw of an African Elephant.

Elephas Africanus.

Hunterian.

675. A molaris of an African Elephant from the lower jaw, exposed in the alveolar cavity.

Hunterian.

676. A molaris of an African Elephant. Upper jaw.

Hunterian.

677. A molaris of the upper jaw of an African Elephant.

Mus. Brit.

678. A portion of a molaris from the lower jaw of an African Elephant.

Presented by Sir E. Home, Bart., 1807.

679. A molaris from the lower jaw of an African Elephant.

A very fine specimen.

Hunterian.

680. A molaris from the lower jaw of an African Elephant.

Mus. Brit.

681. A vertical polished section of a molaris of an African Elephant, from the lower jaw.

Presented by Sir E. Home, Bart., 1807.

682. The corresponding section of ditto. Unpolished.

Presented by Sir E. Home, Bart., 1807.

683. A vertical section of a molaris from the lower jaw of an African Elephant. Polished.

Hunterian.

Genus HIPPOPOTAMUS.

Incisores $\frac{4}{4}$ Cuspidati $\frac{11}{11}$ Molares $\frac{77}{66}$

684. Skeleton of a male Hippopotamus.

Hippopotamus amphibius—*Lin.*

Fig.—Cuv: *Oss. Foss.* i. pl. 1, 2. *Ency. Méthod.* pl. 40. f. 4.

Dampier's *Voyage. fig.* Shaw, *Gen. Zool.* ii. pl. 219.

Habitat.—Most parts of Africa.

Mus. Brookes.

685. Skull of a very large male Hippopotamus.

Hippopotamus amphibius.

Hunterian.

686. Skull of a male Hippopotamus.

Hippopotamus amphibius.

Hunterian.

687. Skull of a Hippopotamus.

Hippopotamus amphibius.

Hunterian.

688. Skull of a Hippopotamus.

Hippopotamus amphibius.

Hunterian.

689. Skull of a Hippopotamus.

Hippopotamus amphibius.

Hunterian.

690. Skull of a Hippopotamus.

Hippopotamus amphibius.

Hunterian.

691. Skull of a Hippopotamus.

Hippopotamus amphibius.

Presented by the late Sir J. Banks, Bart., 1815.

692. Skull of a Hippopotamus.

Hippopotamus amphibius.

Hunterian.

693. The skull of a foetal Hippopotamus.

The period of gestation uncertain.

Hippopotamus amphibius.

Presented by W. Clift, 1826.

694. A portion of the upper jaw of a young Hippopotamus, with the incisors.

Hunterian.

695. Anterior portion of the lower jaw of a Hippopotamus, with the incisors.

Hunterian.

TEETH.

696. An incisor from the lower jaw of a Hippopotamus.

Hunterian.

697. An incisor from the lower jaw of a Hippopotamus.

Presented by the late Sir J. Banks, Bart.

698. The corresponding incisor of a Hippopotamus.

Presented by the late Sir J. Banks, Bart.

699. An incisor from the lower jaw of a Hippopotamus.

Hunterian.

700. An incisor from the lower jaw of a Hippopotamus.

Hunterian.

701. A large incisor from the lower jaw of a Hippopotamus.

Hunterian.

702. The right upper incisor of a Hippopotamus.

Mus. Brit.

703. The right upper incisor of a Hippopotamus.

Hunterian.

704. An incisor from the lower jaw of a Hippopotamus.

Presented by Mr. Greville, 1800.

705. The corresponding incisor of a Hippopotamus.
Presented by Mr. Greville, 1800.
706. An incisor from the lower jaw of a Hippopotamus.
Hunterian.
707. An incisor from the upper jaw of a Hippopotamus. Left side.
Hunterian.
708. An incisor from the lower jaw of a Hippopotamus.
Mus. Brit.
709. A cuspidatus or tusk of a Hippopotamus. Lower jaw, left side.
Hunterian.
710. A tusk from the lower jaw of a young Hippopotamus.
Hunterian.
711. The two lower tusks of a Hippopotamus.
Hunterian.
712. A tusk from the left side of the lower jaw of a Hippopotamus,
having an unusual curvature.
Hunterian.
713. A tusk from the left side of the lower jaw of a Hippopotamus.
Hunterian.
714. A tusk from the right side of the lower jaw of a Hippopotamus.
Mus. Brit.
715. A tusk from the right side of the upper jaw of a Hippopotamus.
Mus. Brit.
716. A tusk from the left side of the lower jaw of a Hippopotamus.
Mus. Brit.
717. A tusk from the lower jaw of a Hippopotamus.
Mus. Parkinson.

718. A tusk from the lower jaw of a Hippopotamus.

Hunterian.

719. A tusk from the lower jaw of a Hippopotamus.

Hunterian.

720. A tusk from the lower jaw of a Hippopotamus.

Hunterian.

721. A tusk from the lower jaw of a Hippopotamus.

Hunterian.

722. Two molares of a Hippopotamus, in polished sections, viz:

No. 1. A vertical section of the 6th molaris from the right side of the upper jaw.

No. 2. The corresponding section.

No. 3. A transverse section of the 4th molaris from the left side of the under jaw.

Presented by Sir E. Home, Bart., 1807.

723. Five molares of the Hippopotamus, viz:

No. 1. The 4th molaris from the right side of the upper jaw.

No. 2. The 5th molaris from the right side of the upper jaw.

No. 3. The 6th molaris from the left side of the under jaw.

No. 4. An incipient molaris from the right side of the upper jaw.

No. 5. An incipient molaris from the right side of the upper jaw.

Hunterian.

Genus *Sus*.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{77}{77}$

724. Skeleton of a Wild Boar.

Sus Scrofa—*Lin*: (*Sus Aper*—*Briss*: *Le Sanglier*, et *Marcassin*—*Buff*:)

Fig.—*Buff*: *Hist. Nat. pl.* 14, 17. *Cuv*: *Oss. Foss.* ii. p. 124. *pl.* 1, 2.

Habitat.—Almost all the temperate parts of Europe and Asia, and the upper parts of Africa.

This animal is the original stock of the domestic Hog.

Mus. Brookes.

725. The skull of the Wild Hog of Bengal.

Sus Scrofa.

*Presented by N. Wallick, Esq., 1812.***726. The skull of a Wild Hog from Bengal.**

Sus Scrofa.

*Presented by Dr. Henderson, 1822.***727. The skull of a Wild Hog from India.**

Sus Scrofa.

*Presented by the late H. Cline, Sen., Esq., 1824.***728. The skull of a Wild Hog from India.**

Sus Scrofa.

*Hunterian.***729. Anterior part of the skull, with the tusks, of a Wild Hog.**

Sus Scrofa.

*Hunterian.***730. The skull of a German Wild Boar, in longitudinal section.**

Sus Scrofa.

*Presented by Sir E. Home, Bart., 1807.***731. The skull of a German Wild Boar, in longitudinal section.**

Sus Scrofa.

*Presented by Sir E. Home, Bart., 1807.***732. The skull of a German Wild Boar, in longitudinal section.**

Sus Scrofa.

*Presented by Sir E. Home, Bart., 1807.***733. The skull of a German Wild Boar, in longitudinal section.**

Sus Scrofa.

*Presented by Sir E. Home, Bart., 1807.***734. The skull of a German Wild Boar. (*Imperfect.*)**

Sus Scrofa.

Hunterian.

735. The lower jaw of a Wild Boar.

Sus Scrofa.

*Hunterian.***736. The skull of a Boar (imperfect.) Domestic var.**

Sus domesticus.

*Hunterian.***737 The skull of a Boar.**

Sus domesticus.

*Hunterian.***738. The skull of a Boar.**

Sus domesticus.

*Hunterian.***739. The skull of a Boar.**

Sus domesticus.

*Hunterian.***740. The skull of a young English Boar.**

Sus domesticus.

*Hunterian.***741. The skull of a common Hog, the teeth of which have been removed, and displayed separately.**

Sus domesticus.

*Hunterian.***742. The skull of a young Pig, in section.**

This, and the succeeding specimens are from Pigs that have been fed on madder for the purpose of illustrating the growth of bone. The bone deposited during that period, is readily distinguishable from the original white bone, by the pink tinge imparted to it by the madder. Some portions of the skull, particularly the internal table, and the fangs of the teeth, still retain the colour; the other parts have lost much of their former redness by long exposure.

Hunterian.

743. A longitudinal section of the lower jaw of a Pig,

In which the bony portion of the teeth has become deeply tinged with madder. The contrast between the newly formed bone of the jaw, and that previously affected by the colouring matter, is remarkably distinct.

Hunterian.

744. The under jaw of a Pig, in section,

Showing the same circumstances, but less distinctly.

Hunterian.

745. The left half of the lower jaw, the two tibiæ, and some of the ribs of a young Pig.

In the experiment which these bones illustrate, the animal had been twice fed with madder; and here, the external layer of bone is tinged; no deposition of ordinary bone having been allowed to form upon it—unlike the preceding specimens.

Hunterian.

746. The right half of the lower jaw, with sections of the right humerus and femur, and left tibia and ulna of a young Pig,

Which had been thrice alternately fed with madder, and ordinary food.

Hunterian.

747. The left humerus, radius and ulna, and section of the scapula, with the right scapula, and sections of the right humerus, ulna, tibia and fibula of a young Pig;

All of which are tinged with madder.

Hunterian.

748. Longitudinal sections of the humerus, femur, and tibia of a Pig,

Tinged with madder.

Hunterian.

749. The right femur and tibia of a Pig, in section,

Slightly tinged with madder.

Hunterian.

750. Longitudinal sections of the humerus, femur, and tibia of a young Pig,

Tinged with madder; showing a layer of white bone deposited externally.

Hunterian.

751. A tray containing young Pigs' teeth,

In all of which, the bony portion of them is highly tinged with madder.

Hunterian.

752. Skeleton of a female Babyroussa.

Sus Babyrussa—*Lin*: (Aper Orientalis —*Briss*: Horned Hog—*Grew*.)

Fig.— Buff: *Hist. Nat.* xii. *pl.* 48. *Grew*, *Mus. Reg. Soc.* p. 27. *t.* 1.

Seba, *Thes.* 1. *t.* 50. *f.* 2. *Shaw*, *Gen. Zool.* ii. *pl.* 224. *f.* 2.

Habitat.—The great Indian Islands.

Mus. Brookes.

753. The skull of a male Babyroussa.

Sus Babyrussa.

Presented by the late William Long, Esq., 1813.

754. The skull of a male Babyroussa.

Sus Babyrussa.

Hunterian.

755. The skull of a Babyroussa.

Sus Babyrussa.

Presented by Dr. Babington, 1816.

756. The skull of a Babyroussa.

Sus Babyrussa.

Presented by Joseph Vernon, Esq., 1822.

757. The skull of a Babyroussa.

Sus Babyrussa.

Presented by Mr. Gaitskell, Sen., 1828.

758. The skull of a Babyroussa. The upper tusks deficient.

Sus Babyrussa.

Presented by N. Wallick, Esq., 1812.

759. The skull of a Babyroussa.

Sus Babyroussa.

*Presented by the late Sir J. Banks, Bart., 1818.***760. The skull of a Babyroussa.**

Sus Babyroussa.

*Presented by the late Daniel Moore, Esq., 1818.***761. The skull of a Babyroussa.**

Sus Babyroussa.

*Hunterian.***762. The skull of a Babyroussa.**

Sus Babyroussa.

*Presented by Sir E. Home, Bart., 1807.***763. The skull of a Babyroussa.**

Sus Babyroussa.

*Hunterian.***764. The skull of a Babyroussa.**

Sus Babyroussa.

*Hunterian.***765. The skull of a Babyroussa.**

Sus Babyroussa.

*Hunterian.***766. The skull of a Babyroussa.**

Sus Babyroussa.

*Purchased 1806.***767. The skull of a Babyroussa. Lower jaw and teeth deficient.**

Sus Babyroussa.

*Hunterian.***768. The skull of a Babyroussa.**

Sus Babyroussa.

*Hunterian.***769. The skull of a Babyroussa.**

Sus Babyroussa.

Hunterian.

Genus PHACCHÆRUS—(*F. Cuv* :)

Incisores $\frac{2}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{33}{33}$

770. The skeleton of a young African Boar.

Phacchærus Africanus or Larvatus—*F. Cuv* : (*Sus Africanus*—*Schreb* :
Sanglier de Madagascar—*Daub* :)

Fig.—Daniel's *African Scenery*. *fig.* 22.

Habitat.—Madagascar, and the neighbouring parts of Africa.

Mus. Brookes.

771. The skull of an African Boar.

Phacchærus Africanus.

Mus. Brookes.

772. The skull of an African Boar.

Phacchærus Africanus.

Hunterian.

773. The skull of an African Boar. The integuments unremoved.

Phacchærus Africanus.

Presented by Sir E. Home, Bart., 1807.

774. The upper jaw and tusks of an African Boar.

Hunterian.

775. The upper jaw and tusks of an African Boar.

Hunterian.

776. Anterior portion of the skull, with the tusks of an African Boar.

Mus. Brit.

777. The skull of an adult Æthiopian Boar. The integuments unremoved.

Phacchærus Æthiopicus. (*Aper Æthiopicus*—*Pall* :

Sus Æthiopicus—*Lin* : Sanglier du Cap Vert—*Buff* :)

Incisores $\frac{0}{0}$ Cuspidati $\frac{11}{11}$ Molares $\frac{33}{33}$

Fig.—*Pallas, Spic. Zool. ii. tab. 1.* *Shaw, Zool. ii. pl. 223.* *Buff: Supp. iii. pl. 11.*

Habitat.—The hotter regions of Africa.

Hunterian.

778. The skull of an Æthiopian Boar. (*Imperfect.*) The integuments unremoved.

Phacochoerus Æthiopicus.

Hunterian.

779. The skull of an Æthiopian Boar.

Phacochoerus Æthiopicus.

Hunterian.

780. Anterior portion of the skull, with the tusks, of an Æthiopian Boar.

Hunterian.

Genus DICOYLES—(*G. Cuv* :)

Incisores $\frac{4}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{66}{66}$

781. The skull of the Collared Peccary, or Mexican Hog.

Dicotyles torquatus—*Cuv* : (*Sus* Tajassu—*Lin* : Pecari—*Buff* :)

Fig.—*Buff* : *Hist. Nat.* x. pl. 3, 4. *F. Cuv* : *Mam. Lithog. f.*

Shaw, Gen. Zool. ii. t. 224.

Habitat.—The Eastern part of South America.

782. Bones of the anterior extremity of the Collared Peccary.

Dicotyles torquatus.

Hunterian.

783. Bones of the posterior extremity of the Collared Peccary.

Dicotyles torquatus.

Hunterian.

784. The skeleton of the White-lipped Peccary.

Dicotyles labiatus—*G. Cuv* : (*Sus* Tajassu—*Lin* : Dicotyles albirostris—*Illig* :)

Fig.—*F. Cuv* : *Mam. Lithog. Fasc.* 27.

Habitat.—Paraguay, and other parts of South America.

Hunterian.

TEETH.

785. A tray containing five tusks of the Boar, all from the lower jaw.

Hunterian.

786. Two tusks of a Boar. Lower jaw, right side.
Hunterian.
787. The crowns, or grinding surfaces of the molares of a Boar.
Mus. Brit.
788. Tusks of a Wild Boar. Upper jaw.
Mus. Brit.
789. Tusks of a Wild Boar. Upper jaw.
Mus. Brit.
790. Tusk of a Wild Boar. Upper jaw.
Mus. Brit.
791. Deciduous and incipient teeth of a young Pig.
Hunterian.
792. Tusk from the lower jaw of a Babyroussa.
Hunterian.
793. Two tusks of the Indian Hog. Lower jaw, right side.
Hunterian.
794. Tusk of an Indian Hog. Lower jaw, right side.
Presented by Sir E. Home, Bart., 1807.
795. A tray containing tusks of different sizes, from the lower jaw
of the Indian Hog.
Mus. Brit.
796. Two tusks of an African Wild Boar. Lower jaw.
Hunterian.
797. Tusk of an African Wild Boar. Upper jaw, right side.
Hunterian.
798. Tusks of a young African Wild Boar. Lower jaw.
Mus. Brit.
799. Tusk of a young African Wild Boar. Lower jaw, left side.
Hunterian.

800. Tusks and molares of an adult African Wild Boar. Upper jaw.
Mus. Brit.
801. Molaris of a young African Wild Boar. Lower jaw, right side.
Mus. Brit.
802. Tusk of an adult African Wild Boar. Upper jaw.
Mus. Brit.
803. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
804. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
805. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
806. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
807. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
808. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
809. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
810. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
811. Tusk of an African Wild Boar. Upper jaw.
Mus. Brit.
812. A transverse section of the Molaris of an African Wild Boar.
Highly polished, for structure.

Presented by Sir E. Home, Bart., 1807.

Genus RHINOCEROS.

Incisores $\frac{2}{2}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{6\ 6}{6\ 6}$

813. The skeleton of the Sumatran two-horned Rhinoceros.

Rhinoceros Bicornis Sumatrensis. (Rhinoceros Sumatranus—*Raff*:
Sumatran Rhinoceros—*Bell*.)

Fig.—*Bell, Philos. Trans.* Vol. lxxxiii. pl. ii. Shaw, *Gen. Zool.* i. pl. 62.

Habitat.—The Island of Sumatra.

This skeleton is figured in Sir E. Home's *Lect. on Comp. Anat.* Vol. iv. pl. LVII.

Presented by the late Sir T. S. Raffles.

814. The skull of the Sumatran two-horned Rhinoceros.

Rhinoceros Bicornis Sumatrensis.

Presented by the late Sir T. S. Raffles.

815. Skull of a female Sumatran two-horned Rhinoceros. The integuments unremoved.

Rhinoceros Bicornis Sumatrensis.

This is the head of the original specimen described and figured by Mr. Bell, in the *Philos. Trans.* Vol. lxxxiii. pl. ii.

Hunterian.

816. The skull of a male two-horned Rhinoceros, from Sumatra.

Rhinoceros Bicornis Sumatrensis.

This specimen is figured in the *Philos. Trans.* Vol. lxxxiii. pl. iii, iv.
Sent to England by Wm. Bell, Esq.

Presented by the late Sir J. Banks, Bart.

817. The skull of the single-horned Rhinoceros, from India.

Rhinoceros Unicornis—*Lin*: (Rhinoceros Indicus—*Cuv*:)

Fig.—*Buff: Hist. Nat.* xi. pl. 7. *Cuv: Oss. Foss.* ii. p. 94. pl. 1, 2, 3, 4, 5.

Parsons, Philos. Trans. Edwards's *Glean.* pl. 221.

Habitat.—India: particularly the banks of the Ganges.

Hunterian.

818. The skull of the single-horned Rhinoceros, from India.

Rhinoceros Unicornis.

Hunterian.

819. Horn of an Indian Rhinoceros.

Hunterian.

820. Horn of an Indian Rhinoceros. (2 feet $9\frac{1}{2}$ inches in length.)

Hunterian.

821. Horn of an Indian Rhinoceros.

Hunterian.

822. Horn of an Indian Rhinoceros.

Hunterian.

823. Horn of an Indian Rhinoceros. (2 feet 9 inches in length.)

Hunterian.

824. Horn of an Indian Rhinoceros.

Purchased 1806.

825. Rudimental horn of an Indian Rhinoceros.

This, and the five following specimens form a series showing their gradual increase in size.

Hunterian.

826. Horn of an Indian Rhinoceros.

Hunterian.

827. Horn of an Indian Rhinoceros.

Hunterian.

828. Horn of an Indian Rhinoceros.

Hunterian.

829. Horn of an Indian Rhinoceros.

Hunterian.

830. Horn of an Indian Rhinoceros.

Hunterian.

831. Horn of an Indian ? *Rhinoceros* in section.

The polished section very distinctly shows the perpendicular direction of the horny fibrillæ or hairs of which it is composed: the horn of the *Rhinoceros* differing so materially from those of cattle, in the circumstance of having no internal osseous base or core upon which it is secreted; being a simple cutaneous formation, unconnected with the bony surface of the skull beneath.

Rhinoceros Unicornis ?.

Hunterian.

832. Horns of an African *Rhinoceros*. From the Cape of Good Hope.

Rhinoceros Bicornis—*Lin: Erxleb: Camper, Sparrman.*

(*Rhinoceros Africanus*—*Cuv:*)

Incisores $\frac{0}{0}$ Molares $\frac{6}{6}$

Fig.—*Buff: Supp. vi. pl. 6. Shaw, Zool. i. pl. 61.*

Habitat.—Southern Africa.

Presented by the late Henry Salt, Esq., 1811.

833. Horns of an African *Rhinoceros*. From Abyssinia.

Presented by the late Henry Salt, Esq., 1811.

834. Horns of an African *Rhinoceros*. From Abyssinia.

The posterior horn of this pair is considerably compressed, or flattened laterally, towards its apex: whether this peculiarity of character would be sufficient to point out a new species, or even a variety, is doubtful.

Presented by the late Henry Salt, Esq., 1811.

835. Horns of an African *Rhinoceros*. From the Cape of Good Hope?

Presented by the late Sir J. Banks, Bart., 1814.

836. The terminal phalanges of the hind-foot of an African *Rhinoceros*.

Covered by the hoof.

Mus. Brit.

837. The bones of the fore-foot of a *Rhinoceros*. Partially covered by the integuments.

Hunterian,

838. The bones of the hind-foot of a Rhinoceros. Partially covered by the integuments.

Hunterian.

839. A tray containing five Rhinoceros' Molares, viz :

- No. 1. The 2nd molaris. Upper jaw, left side.
 No. 2. The 4th molaris Upper jaw, left side.
 No. 3. The 5th molaris. Upper jaw, left side.
 No. 4. The 6th or posterior molaris. Upper jaw, left side.
 No. 5. The 1st molaris. Lower jaw, left side.

Presented by Sir E. Home, Bart., 1807.

Genus TAPIRUS.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{77}{66}$

840. The skeleton of the Indian or Malay Tapir. Male.

Tapir Malayanus—*Raffles*. (Tapirus Indicus—*Desm*: Mariba—*F. Cuv* :)
Fig.—Horsfield's *Zool. Res.* Home's *Comp. Anat.* iv. pl. lviii. of this skull.
 The skin of this animal is preserved in the Museum, stuffed.

Presented by the late Sir T. S. Raffles, 1820.

841. Skull of the Indian or Malay Tapir.

Tapir Malayanus.

Presented by the late Sir T. S. Raffles, 1820.

842. Skull of the American Tapir.

Tapir Americanus—*Lin*: (Tapiurete Brasiliensibus—*Marcg*:
 Long-nosed Tapir—*Pennant*.)

Fig.—Home's *Comp. Anat.* iv. pl. lix. of this skull.

Cuv: *Descript. Osteol. du Tapir.* *Ann. Mus.* iii. tab. 10, 11. f. 1.

Habitat.—Most parts of South America.

Hunterian.

Genus EQUUS.

Incisores $\frac{6}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{6}{6} \frac{6}{6}$

843. The skeleton of a Horse.

Equus Caballus—*Lin*: (Cheval—*Buff*:)*Fig.*—Most works on Zoology. *Cuv*: *Oss. Foss.* ii. p. 108. *pl.* 1, 2, 3.*Habitat.*—Most of the temperate parts of the Old World.*Hunterian.*

844. The skeleton of a foetal Colt, at about the second month of uterine gestation.

Equus Caballus.

Mus. Brookes.

845. Skull of a Horse.

Equus Caballus.

Presented by the late Henry Cline, Sen., Esq., 1824.

846. Skull of a Horse.

Equus Caballus.

Hunterian.

847. Skull of a Horse.

Equus Caballus.

Hunterian.

848. Skull of a Horse.

Equus Caballus.

Hunterian.

849. Skull of a Horse.

With præternatural growth of the teeth, the consequence of imperfect apposition.

Equus Caballus.

Hunterian.

850. Skull of a Foal.

Equus Caballus.

Presented by the late Henry Cline, Sen., Esq., 1824.

851. Section of the skull of a Foal.

Equus Caballus.

Presented by the late Henry Cline, Sen., Esq., 1824.

852. Bones of the anterior extremity of a Pony.

853. Bones of the posterior extremity of a Pony.

854. Bones of the fore, and hind foot of a Horse.

Presented by the late Henry Cline, Sen., Esq., 1824.

855. A longitudinal section of the upper part of the right femur of a Horse, showing the cancelli.

Hunterian.

856. The skull of a Horse, in longitudinal section.

Hunterian.

857. A longitudinal section of the skull of a Horse.

Exposing the cavity of the cranium, the frontal sinus, &c.

Hunterian.

858. A longitudinal section of the skull of a Foal.

In which the pituitary membrane, and the membrane lining the alveolar cavities have been minutely injected.

Equus Caballus.

Hunterian.

859. A longitudinal section of the skull of a Foal.

The posterior part of the cranium has been removed.

Equus Caballus.

Hunterian.

860. The skeleton of an Ass. Male.

Equus Asinus—*Lin:* (Asne—*Buff:*)*Fig.*—Johnson's *Quad:* pl. 6. *Buff:* *Hist. Nat.* iv. pl. 11. &c.*Habitat.*—The temperate climates of the Old World.*Hunterian.*

861. Skull of an Ass.

Equus Asinus.

Presented by W. Clift, 1822.

862. Skull of an Ass.

The incisors of the lower jaw show the effects of unequal attrition.

Equus Asinus.

Hunterian.

863. The skeleton of the Couagga.

Equus Quagga—Gmel. (Asinus Quagga—Gray. Cougga—Buff:)

Fig.—Buff: Hist. Nat. Supp. pl. 4. Shaw, Zool. ii. pl. 218.

Cuv: Menag. du Mus. f.

Vide portrait of Lord Morton's Quagga, painted for the College by M. Agasse, 1820. In the Museum.

Habitat.—Southern Africa.

This animal was one of a pair that had been driven in harness for some time, while in the possession of Mr. Sheriff Parkins; and was by him presented, after its death, to Mr. Brookes.

Mus. Brookes.

864. Skull of a male Couagga.

Equus Quagga.

Presented to Mr. Brookes by Mr. Sheriff Parkins.

Mus. Brookes.

865. The skeleton of a Zebra.

Equus Zebra--Lin. (Asinus Zebra--Gray. Equus Montanus--Burchell.)

Fig.—Buff: Hist. Nat. xii. pl. 1 and 2. Cuv: Menag. du Mus. f.

Habitat.—Africa, especially the southern parts.

Presented to Mr. Brookes by Wm. Bullock, Esq. This Animal was formerly in the possession of His late Majesty, George the Fourth.

Mus. Brookes.

866. A longitudinal section of the skull of a Horse. Left side.

The teeth are exposed in the alveolar cavities.

Equus Caballus.

Hunterian.

867. The teeth removed from the upper jaw of a Horse. Right side.

Corresponding with the preceding specimen.

Hunterian.

868. The anterior portion of the skull of a Horse, in which the molares of the left side are exposed in their alveolar cavities.

Hunterian.

869. A transverse section of the lower jaw of a Horse, exposing a molaris in its alveolar cavity.

Purchased 1812.

870. A molaris of a Horse, which had the following inscription, in Mr. Hunter's hand writing, attached to it:—

“ A Horse's tooth of the under jaw; had ground out the tooth above it; the wound mortified, and the horse died.”

Hunterian.

871. The remains of a shedding molaris, the fangs being absorbed; with the succeeding permanent grinder in contact.

Hunterian.

872. Three molares of a Horse, in polished sections, viz:—

No. 1. Transverse section of the 2nd molaris. Lower jaw, right side.

No. 2. Transverse section of the 4th molaris. Lower jaw, left side.

No. 3. Third molaris. Upper jaw, left side. In longitudinal section.

No. 4. The corresponding section of No. 3.

Equus Caballus.

Hunterian.

873. A longitudinal and oblique section of the molaris of a Horse.

Hunterian.

874. Longitudinal sections of two incisors of a Horse, about three years old ; showing the course and extent of the enamel.

Presented by Sir E. Home, Bart., 1807.

875. Transverse sections of three molares of a Horse, for structure.

No. 1. The 1st molaris. Upper jaw, right side.

No. 2. The 5th molaris. Upper jaw, right side.

No. 3. The 6th molaris. Upper jaw, right side.

Presented by Sir E. Home, Bart., 1807.

ORDER VII.—RUMINANTIA.—(PECORA—Lin:)

Tribe 1. CAMELIDÆ.

Genus CAMELUS—(Lin:)

Incisores $\frac{2}{6}$

Cuspidati $\frac{11}{11}$

Molares $\frac{5\ 5}{5\ 5}$

876. Skull of a female Bactrian Camel.

Camelus Bactrianus—Lin: (Chameau—Buff:)

Fig.—Johnst: *Quad. pl.* 42, 44. Shaw, *Zool.* ii. *pl.* 67.

Buff: *Hist. Nat.* xi. *pl.* 22.

Habitat.—The Northern parts of India, and the deserts bordering China.

The animal was purchased, in a living state, by the College, in 1805.

This species of Camel is generally considered more fleet than the Arabian.

877. The skeleton of an Arabian Camel or Dromedary.

Camelus Dromedarius—Lin: (Dromedaire—Buff:)

Fig.—Buff: *Hist. Nat.* xi. *pl.* 9. G. Cuv: *An. du Mus.*

Shaw, *Zool.* Vol. ii. *pl.* 166.

Mus. Brookes.

878. Skull of an Arabian Camel or Dromedary.

Camelus Dromedarius.

Hunterian.

Genus LAMA—(Cuv:)

Incisores $\frac{2}{6}$ Cuspidati $\frac{11}{11}$ Molares $\frac{55}{44}$

879. The skeleton of the Lama.

Lama Peruana--*Tied.* (Chameau de Perou--*Briss:* C. Huanacus--*Schreb:*Lama-*Buff:* G. & F. *Cuvier.* Guanaco-*Shaw.* Camelus Glama-*Lin:*)*Fig.*—*Shaw, Zool.* ii. *pl.* 169. *Buff: Hist. Nat. Supp.* xiii. *pl.* 27.*Habitat.*—Peru, and the Southern Andes.

Presented to Mr. Brookes by Lord Darnley.

Mus. Brookes.

880. Skeleton of the Paco.

Lama Pacos—*Less:* (Camelus Pacos—*Lin:*)*Habitat.*—The Peruvian and Chilian Andes.*Mus. Brookes.*

Tribe 2. CERVIDÆ.

Genus MOSCHUS.

Incisores $\frac{0}{8}$ Cuspidati $\frac{11}{00}$ Molares $\frac{66}{66}$

881. Skull of the Thibetan Musk.

Moschus Moschiferus—*Lin:* (Le Musc—*Buff:*)*Fig.*—*Buff: Hist. Nat. Supp.* vi. *pl.* 29. *Shaw, Mus. Lev.* i. p. 10. t. 3.*Penn: Quad.* i. *pl.* 12. *f.* 1.*Habitat.*—China, Tartary, mountains of Thibet, and the Northern parts of India.*Presented by the late Sir J. Banks, Bart.*882. Skull of the Thibetan Musk. (*Killed in April, 1828.*)

Moschus Moschiferus.

Presented by Lieut. Col. Finch, 1830.

883. Anterior portion of the jaws of a Thibetan Musk. For the teeth.

Hunterian.

884. Anterior portion of the jaws of a Thibetan Musk.

Hunterian.

885. Anterior portion of the jaws of a Thibetan Musk.

Hunterian.

886. The skeleton of the Meminna or Pygmy Chevrotain.

Moschus Meminna—*Erxleb*: (Indian Musk—*Penn* :Memina ou Chevrotain de Ceylan—*Buff*:)*Fig.*—*Buff*: *Supp.* iii. *pl.* 15. Shaw, *Zool.* ii. *pl.* 173. *Penn*: *Syn.* *pl.* 10. *f.* 2.*Habitat.*—Ceylon.*Mus. Brookes.*887. Skull, (*Imperfect*) and feet of a Meminna or Pygmy Chevrotain.

Moschus Meminna.

From Pulo Pinang.

Presented by Sir E. Home, Bart., 1810.

888. The skeleton of the Kanchil, or Javan Chevrotain.

Moschus Javanicus—*Pall*: (Moschus Indicus—*Lin* :Chevrotain du Java—*Buff*: Kanchil—*Raffles*.)*Fig.*—*Buff*: *Supp.* vi. *pl.* 30. Shaw, *Gen. Zool.* ii. *pl.* 173.?*Habitat.*—The Forests of Java.*Mus. Brookes.*

889. The skeleton of the Napu.

Moschus Napu—*F. Cuv. et Geoff*: (Moschus Javanicus Napu—*Raffles*.)*Fig.*—*F. Cuv*: *Mam. Lithog.* Desmoul: *Dict. Class.* iii. *fig.**Habitat.*—Java.*Presented by the late Sir T. S. Raffles.*

890. The skull of a young Napu.

Moschus Napu.

Hunterian.

Genus CERVUS.

Sub-Genus ALCE S.

Incisores $\frac{0}{8}$ Cuspidati $\frac{0\ 0}{0\ 0}$ or $\frac{1\ 1}{0\ 0}$ Molares $\frac{6\ 6}{6\ 6}$

891. The skeleton of the European Moose-deer, or Elk. Male.

Cervus Alces—*Lin*: (Cervus Palmatus Alce—*Klein*.

Moose or Elk—*Catesby*. L'Elan—*Buff*:)

Fig.—Shaw, *Zool*. ii. *pl.* 174, 175.

Cuv: *Oss. Foss.* iv. *pl.* 4. *f.* 22—29., *pl.* 6. *f.* 8., *pl.* 5. *f.* 49.

Penn: *Syn. l. c.* *pl.* 7.

Habitat.—The Northern parts of Europe.

Mus. Brookes.

892-893. Two skulls of the American Elk.

Cervus Alces. (Alce maxima Americana nigra—*Catesb*:)

Habitat.—North America.

The history of these skulls (obtained from a memorandum left by Mr. Hunter), is curious. They are from North Carolina; and the animals to which they belonged were two large males, who, in the season when sexual excitement is strong, becoming unusually pugnacious, were engaged in fighting, and their horns, as usual, employed as weapons of offence: these, by violent contact, became so firmly locked within each other by means of their points or snags, that the animals were incapable of liberating themselves; and in this state they were discovered, starved to death.

Hunterian.

894. Skull of an European Elk. (*Imperfect*.)

Cervus Alces.

Hunterian.

895. A pair of horns of an American Elk. Gray var.

Cervus Alces.

Hunterian.

896. A pair of horns of an European Elk.

Cervus Alces.

Hunterian.

897. A pair of horns of an American Elk.

Cervus Alces.

These horns present an unusual appearance, from being duplex in the palm.

Hunterian.

898. A pair of horns of an European Elk.

Cervus Alces.

899. A horn of an American Elk.

Cervus Alces.

Presented by Sir E. Home, Bart., 1807.

900. A pair of horns of a young American Elk.

Cervus Alces.

Mus. Lev. 1806.

Sub-Genus RANGIFER.

901. The skeleton of a female Rein-deer. From Lapland.

Cervus Tarandus—*Lin*: Cervus Grœnlandicus—*Briss*: Renne—*Buff*:)*Fig.*—*Buff*: *Hist. Nat.* xii. t. 10, 11, 12.Cuv: *Oss. Foss.* iv. pl. 4. f. 1—18., pl. 5. f. 47.Penn: *Quad.* i. t. 10. f. 2. Shaw, *Zool.* ii. pl. 176.*Habitat.*—The Arctic Circle of both Continents.*Presented by W. Bullock, Esq., 1821.*

902. A skull and horns of a male Rein-deer. From Lapland.

Cervus Tarandus.

Presented by Mr. Leadbeater, 1821.

903. A skull and horns of a male Rein-deer. From Lapland.

Cervus Tarandus.

Presented by W. Bullock, Esq., 1821.

904. A skull and horns of a male Rein-deer. From Greenland.

Cervus Tarandus.

Hunterian.

905. The horns of a male Rein-deer. From Siberia.

Hunterian.

906. The horns of a young male Rein-deer. From Lapland.

Presented by W. Bullock, Esq., 1818.

907. The horns of a young male Rein-deer. From Lapland.

Hunterian.

908. The horns of a male Rein-deer. From Lapland.

Hunterian.

909. The horn of a male Rein-deer, or Caribou of the Rocky Mountains, North America.

Hunterian.

910. A horn of a male Rein-deer. From Lapland.

Hunterian.

911. A horn of a young male Rein-deer. From Greenland.

Hunterian.

912. A horn of a male Rein-deer. From Siberia.

Having thirty-seven points, or snags.

913. The skull of a male Rein-deer.

The horns cut off.

Hunterian.

914. The skull of a male Rein-deer.

The horns in this specimen are also cut off. The teeth of both jaws, on one side have been removed, and displayed separately.

Cervus Tarandus.

Hunterian.

915. The horns of a female Rein-deer. From Lapland.

Hunterian.

916. The horns of a female Rein-deer. From Lapland.

Presented by W. Bullock, Esq., 1821.

917. The tarsus, metatarsus and phalanges of the left posterior extremity of a male Rein-deer.

Mus. Brit.

Sub-Genus DAMA.

918. The skeleton of a Fallow-deer. Male.

Cervus Dama—*Lin*: (*Dama Vulgaris*—*Gesn*: *Dain*—*Buff*:)

Fig.—*Shaw, Gen. Zool.* ii. *pl.* 178, 179.

Cuv: *Oss. Foss.* iv. *pl.* 4. *f.* 23—35. *Horns.* *Buff*: *Hist. Nat.* vi. *pl.* 27, 28.

Habitat.—Europe, and Western Asia.

Hunterian.

919. The skull and horns of a Fallow-deer.

Cervus Dama.

Hunterian.

920. The horns of a Fallow-deer,

That were not shed at the usual time, in consequence of the castration of the animal; from which period that process ceases.

Presented by Sir E. Home, Bart., 1807.

921. The horns of a Fallow-deer,

Under similar circumstances.

Presented by Sir E. Home, Bart., 1807.

922. A horn of a young Fallow-deer.

Hunterian.

923. A horn of a young Fallow-deer, or Pricket.

Presented by Robert Hills, Esq., 1829.

924. A horn of a Fallow-deer.

Hunterian

925. A horn of a Fallow-deer.

Hunterian.

926. A horn of a Fallow-deer.

Hunterian.

927. A horn of a Fallow-deer.

Hunterian.

928. A single horn of an American Fallow-deer. Female.

Cervus Dama Americanus—*Erxleb*:

The following is a copy of a label that was attached to it:—"No. 171.

"This Horne grew in the frontlet of a Doe in New England in America

"1607."

Mus. Brit.

929. The upper and lower jaw of a Fallow-deer. For the teeth.

Hunterian.

930. Half of the upper and lower jaw of a Fallow-deer. For the teeth.

Hunterian.

931. A pair of irregular and distorted horns of unequal size, of a Fallow-deer.

Hunterian.

932. The bones of the anterior extremity of a Fallow-deer.

Hunterian.

933. The bones of the posterior extremity of a Fallow-deer.

Hunterian.

934. A single horn of a Fallow-deer.

The palmated portion removed.

Hunterian.

935. A pair of horns of the Virginian Fallow-deer.

Cervus Virginianus.

Fig.—Cuv: *Oss. Foss.* iv. pl. 5. f. 1.

Habitat.—Virginia and Carolina, North America.

Mus. Lev.

Sub-Genus ELAPHUS.

936. A pair of horns of the Stag.

Cervus Elaphus—*Lin*: (*Cerf*—*Buff*: Stag or Red Deer—*Penn*:)

Fig.—*Buff*: *Hist. Nat.* vi. *pl.* 9. *Shaw, Zool.* ii. *pl.* 177.

Cuv: *Oss. Foss.* iv. *pl.* 3. *f.* 1—12. *Horns. Ency. Méthod.* *pl.* 57. *f.* 3, 4.

Habitat.—Europe, Western Asia, Barbary, &c.

Hunterian.

937. A pair of horns of a Stag.

Cervus Elaphus.

Mus. Lev. 1806.

938. A pair of horns of the American Stag, or Wapiti.

Cervus Canadensis—*Briss*: (*Cervus Strongyloceros*—*Schreb*:

Cervus Major—*Ord.* *Cervus Wapiti*—*Leach, Barton, &c.*

Le Wapiti—*Cuv*:)

Fig.—*Cuv*: *Oss. Foss.* iv. *pl.* 3. *f.* 15—22. *Horns. Bewick's Quad. fig.*

Ency. Méthod. t. 58. *f.* 2.

Habitat.—North America: particularly Canada.

Sub-Genus RUSA.

939. A single horn of the Great Rusa, or Horse Stag.

Cervus Hippelaphus—*Cuv*: (*L'Hippelaphe*—*Cuv*: *Great Axis*—*Penn*:)

Fig.—*Cuv*: *Oss. Foss.* iv. *pl.* 5. *f.* 31—34. *Horns. f.* 42. *Skull.*

Habitat.—India: chiefly Bengal.

This specimen was from the Himalayan Mountains.

Presented by Lieut. Col. Finch, 1830.

940. The skull and horns of the Black Rusa of Bengal.

Cervus Aristotelis—*Cuv*:

Fig.—*Cuv*: *Oss. Foss.* iv. *pl.* 39. *f.* 10. *Horns.*

Hunterian.

941. Horns of the Malayan Rusa, or great Water Stag.

Cervus Equinus—*Cuv*: (*Rusa*—*Sir T. S. Raffles.*

Cervus Aquaticus, Jamboe or Samboo, of travellers.)

Vide the copy of an original drawing of the head and horns of the living animal in Exeter Change in 1818.—*W. H. Clift*. (In the Museum portfolio.)

Habitat.—India: Sumatra, Java, and other large islands of the Indian Archipelago.

This specimen was from the Coromandel coast.

Hunterian.

942. Frontlet and horns of a Rusa.

Cervus Equinus.

Presented by the late Sir T. S. Raffles.

943. Frontlet and horns of a Rusa.

Cervus Equinus.

Presented by the late Sir T. S. Raffles.

Sub-Genus AXIS.

944. The skull and horns of the Axis, or Parrah, of Hindostan.

Cervus Axis—*Lin*:

Fig.—Buff: *Hist. Nat.* xi. *pl.* 38, 39. Cuv: *Oss. Foss.* iv. *pl.* 5. *f.* 24-29. Horns.

Shaw, *Gen. Zool.* ii. *pl.* 180.

Habitat.—Hindostan, Sumatra, Java, Ceylon.

This specimen was from the Himalayan Mountains.

Presented by Lieut. Col. Finch, 1830.

945. Frontlet and horns of a young Axis.

Cervus Axis.

From the Himalayan Mountains.

Presented by Lieut. Col. Finch, 1830.

946. Horns of a Dwarf Axis.

Cervus Pumilio.

These horns have a bony stem or pedicle of nearly an inch in length; in this respect resembling the Kijang, or Indian Roe; the burr or pearl is not much developed; a small vertical antler in front, and but slightly separated from the beam, which is flattened laterally, and terminates in

a point; length of the horns, measured from the burr, unequal; the right, $2\frac{3}{4}$ inches; the left, $3\frac{1}{2}$ inches; colour, a light buff.

Habitat.—Unknown, but probably India.

Hunterian.

Sub-Genus CAPREOLUS.

947. A single horn of the Tartarian Roe. Young.

Cervus Pygargus—*Pallas*. (Tailless Roe—*Shaw*. *Cervus Ahu*—*Gmel*:
Chevreuil de Tartarie—*Cuv*:)

Fig.—Schreb: *Säugeth. tab.* 253. *Gmel*: *Reise. iii. tab.* 56.

Hunterian.

948. The skeleton of the Roebuck.

Cervus Capreolus—*Lin*: (*Capreolus Dorcas*—*Gesn*:
Chevreuil de L'Europe—*Cuv*:)

Fig.—Penn: *Brit. Zool. p. c. pl.* 18. *Cuv*: *Oss. Foss. iv. pl. 1. f.* 37-40. Horns.
Johnst: *Quad. pl.* 31, 33. Buff: *Hist. Nat. vi. pl.* 32, 33.

Habitat.—Europe, and the more temperate parts of Asia: in Great Britain, particularly Scotland and Dorsetshire.

Mus. Brookes.

949. The skeleton of a Roebuck. (*Imperfect*.)

Cervus Capreolus.

Hunterian.

950. Horns of a young Roebuck.

These are probably from New Jersey, North America.

Cervus Nemoralis. ?

Hunterian.

951. Horns of a Young Roebuck.

Hunterian.

952. Horns of a young Roebuck.

Hunterian.

953. Horns of a Roebuck, curiously contorted in their growth.

Mus. Brit.

954. Horn of a young Roebuck.

Mus. Brit.

Sub-Genus **STYLOCEROS.**

955. Frontlet and Horns of the Kijang, or Indian Roebuck.

Cervus Muntjak—*Zimm.* (*Cervus Vaginalis*—*Bodd* :

Cervus Moschatus, and *Cervus Subcornutus*—*Blainv* :

Chevreuil des Indes—*Allam* : *Buff* : Rib-faced Deer—*Penn* :)

Fig.—Marsden's *Hist. of Sumatra*. Ed. 1811. *Buff* : *Hist. Nat. Supp.* v. tab. 17.

Cuv : *Oss. Foss.* iv. pl. 3. f. 49. Horns., pl. 5. f. 48. Skull.

Habitat.—Sumatra, Java, and probably other Indian Islands.

Presented by the late Sir T. S. Raffles, 1821.

956. The skull and Horns of a Kijang.

Cervus Muntjak. (*C* : *Subcornutus*—*Blain* :)

In this specimen the skull has been destroyed anterior to the molares ; from which circumstance, a question arose, as to its ever having possessed the cuspidati or tusks ; but from the very striking resemblance it bears in all other particulars to one from the Himalayan Mountains, in the Museum,—in which, as usual, these peculiar elongated teeth exist,—but little doubt need remain on this point.

There appears to be some inaccuracy in the description of this specimen in Griffith's translation of Cuvier's *Régne Animal* (*vide Synopsis of the Species of Mam.* Order Ruminantia. Genus *Cervus*), where it is expressly stated, that, as variations from the common *Muntjak*, this specimen has “ the point of the beam turned back, and not towards the opposite horn ; “ pedicles short, strong, not much prolonged down the face, &c.” Upon comparison, however, the curvature of the horns is precisely the same ; the pedicles not only equal, but superior in length, and their only marked difference appears to be in the shortness of the horns above the burr, and the greater divergence of their pedicles from each other, than in the other specimens : all which might be consequent on its age, this being a younger animal.

Presented by Sir E. Home, Bart., 1807.

957. Skull and horns of a Kijang.

Cervus Muntjak. (Cucker or Barking Deer of the natives.)

From the Himalayan Mountains. Killed in June, 1828.

Presented by Lieut. Colonel Finch, 1830.

958. Skull of a female Kijang. From the Himalayan Mountains.

Cervus Muntjak.

Presented by Lieut. Colonel Finch, 1830.

959. Skull of a young male Kijang. From the Himalayan Mountains.

With deciduous horns, which are but $1\frac{1}{2}$ inches in length.

This specimen was originally covered by the skin, which on the upper part of the head was of an universal bright chesnut colour, fading into a pale yellowish-white under the throat.

Cervus Muntjak.

Presented by Lieut. Colonel Finch, 1830.

960. Skull of a young female Kijang. From the Himalayan Mountains.

Colour of the skin, the same as in the preceding.

Cervus Muntjak.

Presented by Lieut. Colonel Finch, 1830.

961. Skull and horns of a young male Kijang.

Cervus Muntjak.

The bony pedicles are $3\frac{1}{4}$ inches in length, and the horns present a very rough surface, with no appearance of bifurcation.

From this specimen M. Blainville first drew his characters of *Cervus Moschatus*.

Sent from Sumatra by William Bell, Esq.

Hunterian.

962. Frontlet and horns of a male Kijang.

Cervus Muntjak.

Presented by the late Sir T. S. Raffles.

963. A bifurcate horn of a Deer. Species uncertain.

It has been cut off above the burr; the beam is $8\frac{1}{2}$ inches in length, becoming flattened at its upper part, which turns forwards and slightly inwards. The brow antler is $6\frac{1}{2}$ inches in length, and is nearly parallel with the beam, having a uniform curvature inwards. Colour, a yellowish-white, or buff.

Tribe 3. GIRAFFIDÆ.

Genus CAMELOPARDALIS.

Incisores $\frac{0}{8}$ Cuspidati $\frac{0}{0}$ Molares $\frac{6}{6}$

964. Skull of a male Giraffa.

Camelopardalis Giraffa—*Gmel*:

(*Giraffa Camelopardalis*, *Cervus Camelopardalis*—*Lin*:

Camelopard—*Penn*: *Giraffe*—*Buff*:)

Fig.—*Penn*: *Quad.* i. *f.* 11. *Buff*: *Supp.* iii. *pl.* 64, 65.

Shaw, *Zool.* ii. *pl.* 181, 182.

Vide an original drawing of the skeleton made at the Cape, amongst the Museum drawings.

This specimen, with some of the cervical vertebræ, and cylindrical bones of the extremities, together with the skin, which is stuffed, on the north platform, were brought to England by Lieut. William Paterson, who had been sent by The Honorable Lady Strathmore on a botanical expedition into Caffraria and other parts of Africa, till then unexplored; and were by her presented to Mr. Hunter.—*Vide* Paterson's *Narrative of Four Journies into the Country of the Hottentots in 1777, 1778, 1779.* p.126.

Hunterian.

965. Skull of a large male Giraffa.

Camelopardalis Giraffa.

The horns are modelled.

Mus. Brookes.

966. Skull of a female Giraffa.

Camelopardalis Giraffa.

Mus. Brookes.

Tribe 4. CAPRIDÆ.

Genus ANTILOPE.

Sub-Genus DICRANOCEROS.

Incisores $\frac{0}{8}$ Cuspidati $\frac{0}{0}$ Molares $\frac{6}{6}$

967. The skull and Horns of the prong-horned Antelope.

Antelope Furcifer—*Smith*. (Antilocapra Americana—*Ord* and *Blainv* :Cervus Bifurcatus—*Raffinesque*.)*Fig.*—*Lin* : *Trans.* xiii. 1. *pl.* 2.*Habitat.*—The stony mountains of North America; the borders of the Missouri, &c.*Presented by Joseph Sabine, Esq.*

968. Horns of an Antelope.

Allied to the preceding, probably a variety.

Antelope Palmata—*Smith*. (Cervus Hamatus—*Blainv* :)*Habitat.*—Baffin's Bay, and the stony mountains near the River Jaune.

These have a small additional process near the centre of bifurcation of each horn, which does not exist in the Furcifer.

The horns are figured by Major Hamilton Smith, in the *Lin. Trans.* xiii. *pl.* 3.*Hunterian.*

Sub-Genus ORYX.

969. Horns of the Caffrarian Oryx. Male.

Antelope Oryx—*Pall* : (Pasan—*Buff* : Antelope Recticornis—*Erxleb* :Ægyptian Antelope—*Penn* : and *Shaw*.

Gemsbok of the Dutch colonists.)

Fig.—*Buff* : *Hist. Nat.* xii. *pl.* 33. *f.* 3. *Buff* : *Supp.* vi. *pl.* 17.*Shaw*, *Zool.* ii. *pl.* 183.*Habitat.*—Caffraria, and other parts of Africa.*Hunterian.*

970. Horns of a Caffrarian Oryx. Male.

Hunterian.

971. Horns of a Caffrarian Oryx. Male.

Hunterian.

972. Single horn of a Caffrarian Oryx. Male.

Hunterian.

973. Horns of a Caffrarian Oryx. Female.? From Abyssinia.

These horns have a single annulation at the base of each; from which, for about $3\frac{1}{2}$ inches, they are perfectly smooth; and then again become annulated about two thirds of their length. Length of the horns 2 feet $7\frac{1}{2}$ inches.

Presented by the late Henry Salt, Esq., 1811.

974. Horns of the White Oryx.

Antilope Leucoryx—*Pall*: (White Antilope—*Shaw*:)

Fig.—*Shaw, Zool. ii. pl. 184. Oriental Miscell. i. p. 127. fig.*

Penn: Quad. ii. pl. 12.

Habitat.—Eastern Arabia; the province of Bahrein, and Island of Gow Bahrein in the Gulph of Bassora; the Persian Desert, &c.

Purchased 1806.

Sub-Genus GAZELLA.

975. Skull and Horns of the White-faced Antelope.

Antilope Pygarga—*Pall*: (Antilope Dorcas—*Pall*: Blässbock of the Dutch.)

Fig.—*Schreb: Säuth. t. 273.*

Habitat.—Caffraria.

Hunterian.

976. Horns of a White-faced Antelope.

Hunterian.

977. Horns of the Springer Antelope.

Antilope Euchore—*Forst*: (Antilope Pygarga—*Blumemb*:

Springbock of the Dutch. La Gazelle à bourse sur le dos—*Allam: Buff*:

Antilope Dorsata et Saliens—*Lacépède*.)

Fig.—*Sparman's Trav: f. Shaw, Zool. ii. pl. 192. Buff: Supp. iii. pl. 21.*

Habitat.—Southern Africa.

Hunterian.

978. Horns of a Springer Antelope.

Purchased 1806.

979. Horns of a Springer Antelope.

Presented by the late William Norris, Esq., 1823.

980. Horns of a Springer Antelope.

Mus. Brit.

981. Skeleton of the Gazelle, or Barbary Antelope.

Antilope Dorcas--*Lin: Pall: (La Gazelle--Cuv: Gazella Africana--Ray.)**Fig.—Ency. Méthod. pl. 53. f. 2. Buff: Hist. Nat. xii. pl. 23, 31. f. 1. Skull.**Habitat.—The Northern parts of Africa, Persia, and Southern Syria.**Mus. Brookes.*

Sub-Genus ANTILOPE.

982. Horn of the Saiga, or Scythian Antelope.

Antilope Saiga--*Pall: (Capra Tatarica—Lin: Antilope Colus—Gesn:)**Fig.—Johnst: Quad. pl. 27. Buff: Hist. Nat. xii. pl. 22. f. 2. Horns.**Ency. Méthod. pl. 52. f. 1.**Habitat.—The South-Eastern parts of Poland, the shores of the Danube, and the Black Sea, &c.**Mus. Brit.*

983. Horns of the Chinese Antelope.

Antilope Gutturosa--*Lin: Pall: (Dscheran--Buff:**Hoang-yang, or Yellow Goat of the Chinese.**Antilope Orientalis—Erxleb:)**Fig.—Pall: Spic. xii. tab. 2, 3. f. 14, 17. Ency. Méthod. pl. 52. f. 4.**Habitat.—The great Desert of Cobi, in central Asia; and the Western part of China.**Hunterian.*

984. Horns of a Chinese Antelope.

Antilope gutturosa.

Hunterian.

985. The Skull and horns of the common Antelope. From the Himalayan Mountains.

Antilope Cervicapra—*Lin: Pall:* (Antilope des Indes—*Buff:*
Gazella Africana—*Ray.*)

Fig.—Shaw, *Zool.* ii. *pl.* 191. *Buff: Hist. Nat.* xii. *pl.* 35. Skeleton.
Penn: *Quad.* *pl.* 15. Schreb: *t.* 268.

Habitat.—Principally the South-Western parts of Africa; and Central India.

Presented by Lieut. Col. Finch, 1830.

986. The horns of the common Antelope.

Hunterian.

987. The horns of the common Antelope.

Hunterian.

988. The horns of the common Antelope.

Hunterian.

989. A horn of the common Antelope, in longitudinal section.

Hunterian.

990. A horn of the common Antelope.

Mus. Brit.

991. A horn of the common Antelope.

Mus. Brit.

992. The bones of the right anterior extremity of the common Antelope.

Hunterian.

993. The bones of the right posterior extremity of the common Antelope.

Hunterian.

Sub-Genus TRAGULUS.

994. A horn of the Klipspringer Antelope.

Antilope Oreotragus—*Forst:* (Antilope Saltatrix—*Bodd:*)

Fig.—*Buff: Supp.* vi. *pl.* 29. Shaw, *Zool.* ii. *pl.* 183.

Habitat.—The rocky and precipitous parts of Caffraria.

Mus. Brit.

Sub-Genus **RAPHICERUS.**

995. The frontlet and horns of the Sharp-horned Antelope.

Antilope Acuticornis—*Blainv* :

Fig.—*Blainv* : *Isis*. 1819. *pl.* 12. *f.* 3.

Habitat—The East Indies. ?

996. A horn of the Sharp-horned Antelope.

Mus. Brit.

997. The frontlet and horns of the Awl-horned Antelope.

Antilope Subulata—*Blainv* :

Fig.—*Vide Cuv* : *Rig. Anim.* By Griffith, *No.* xi. *fig.*

Habitat.—The East Indies. ?

This, and the preceding, (*A. Acuticornis*) were the original specimens described by M. Blainville, in 1818.

Sub-Genus **TETRACERUS.**

998. Skeleton of the Chicara, or Four-horned Antelope.

Antilope Chickara—*Hardwicke*. (*Antilope Quadricornis*—*Blainv* :

Tetracerus Quadricornis et Striaticornis—*Leach*.

Le Tschickara—*F. Cuv* : *et Geoff* :)

Fig.—*Hardwicke*, *Lin. Trans.* Vol. xiv. *pl.* 15. *Blain* : *Isis*. 1819. *pl.* 12. *f.* 3.

Vide—Original drawings from the living animal, in the College Museum, and Linnæan Society, by Robert Hills, Esq.

Habitat.—The forest, and hilly tracts along the Western Provinces of Bengal, Bahar, and Orissa.

The animal was brought alive to this country from Bengal, and was in the possession of — Fairlie, Esq., York Terrace, Regent's Park: it died in August, 1827. For an account of its admeasurements, &c., *vide* "Remarks on the Antilope Chikara," in two letters addressed to the secretary of the Linnæan Society by Robert Hills, Esq., F.L.S. Vol. XV. of the *Lin. Trans.* p. 501.

999. The skull of a Chicara, or Four-horned Antelope. From Moorshedabad.

The posterior horns deficient.

Antilope Quadricornis.

The anterior horns of this skull, (which appears to have belonged to an adult animal) differ from those of the preceding specimen, in being much more acuminate, and obliquely compressed on their inner side; which, in a transverse section, would give them something of a lozenge form.

From this specimen, M. Blainville formed his species Quadricornis.

Purchased 1806.

1000. One of the posterior horns of a Chicara, or Four-horned Antelope.

Mus. Brit.

Sub-Genus CEPHALOPHUS.

1001. The skull of the Duyker-bock, or Diving-buck. ?

The teeth of the upper and lower jaw, on the left side, are removed and displayed separately.

Antilope Mergens?—*Blainv*: (Antilope Nictitans—*Thunb*:

Capra Merga—*Forster*. (Duyker or Duykerbok of the Dutch colonists.)

Habitat.—Southern and Western Africa, particularly Caffraria.

Hunterian.

1002. A horn of a Duyker-bock.

(Authority—Hamilton Smith, Esq., 1818.)

Mus. Brit.

Sub-Genus NEOTRAGUS.

1003. A portion of the skull, with the horns and feet, of "Salt's Antelope;" the Madoka of the Abyssinians.

Antilope Madoka. (Antilope Saltiana—*Blainv* :)

Fig.—*Blainv*: *Isis*. 1819. *pl.* 12. *f.* 5, 9.

Habitat.—Abyssinia.

Presented by the late Henry Salt, Esq., 1811.

Sub-Genus TRAGELAPHUS.

1004. The horns of the Bosch-bock.

Antilope Sylvatica—*Sparrm*: (Bosbock—*Allam*: *Buff*:

Forest Antelope—*Penn*: Boschbok of the Dutch colonists.)

Fig.—*Buff*: *Hist. Nat.* v. pl. 15. *Sparrm*: *Act. Holm.* 1780. iii. 7. pl. 7.

Schreb: *Säugeth. t.* 259.

Habitat.—The forests of Caffraria.

Hunterian.

Sub-Genus NÆMORHEDUS.

1005. The skull and horns of the Cambing Ootan, or Antelope of Sumatra.

Antilope Sumatrensis—*Shaw*. (Antilope interscapularis—*Licht*:

Sumatran Antelope—*Penn*: Cambing Ootan, or Wild Goat, the Malayan name—*vide* *Marsd*: *Hist. of Sumatra*, p. 93.

Fig.—*F. Cuv*: and *Geoff*: *Hist. Nat. des Mam. fig.*

Habitat.—The mountain forests of Sumatra.

Hunterian.

1006. The skull and horns of a Sumatran Antelope.

Antilope Sumatrensis

Hunterian.

1007. The skull and horns of a Sumatran Antelope.

Antilope Sumatrensis.

Sent to England by William Bell, Esq.

Hunterian.

1008. The skull of a Sumatran Antelope. Female.

Antilope Sumatrensis.

Sent to England by William Bell, Esq.

Hunterian.

1009. The skull of the Goral or Gurrul. From the Himalayan Mountains.

Antilope Goral—*Hardwicke*. (Bouquetin de Nepaul—*F. Cuv*: *Geoff*:)

Fig.—*Lin*: *Trans.* Vol. xiv. pl. 14.

Habitat.—The Himalayan Mountains, and those of the Nepaul frontier.

Presented by Lieut. Colonel Finch, 1830.

Sub-Genus RUPICAPRA.

1010. The horns of the common Chamois. From Switzerland.

Antilope Rupicapra—*Pall.*: (Capra Rupicapra—*Lin.*)

Fig.—Schreb: *t.* 279. *Ency. Méthod. pl.* 55. *f.* 4.

Buff: *Hist. Nat.* xii. *pl.* 16. Shaw, *Zool.* ii. *pl.* 187.

Habitat.—The Alpine Mountains of Europe and Asia.

Hunterian.

1011. The horns of the Chamois.

Mus. Brit.

1012. A horn of a Chamois.

Mus. Brit.

1013. A horn of a Chamois. Polished.

Mus. Brit.

1014. A horn of the Caucasian Chamois. From Northern Tartary.

Mus. Brit.

Sub-Genus ANOA.

1015. Portion of the skull, with the horns, of the Anoa. From Pulo Pinang.? Male.

Anoa Depressicornis—*Smith.* (A. Compresicornis—*Leach.*)

Habitat.—The Island of Celebes; and other East Indian Islands.

Presented by Dr. Henderson, 1822.

1016. The frontlet and horns of an Anoa. From Pulo Pinang.? Male.

Anoa Depressicornis.

Presented by Dr. Henderson, 1822.

1017. The skull and horns of an Anoa. Female.

Anoa Depressicornis.

Presented by Dr. Henderson, 1822.

1018. The skull and horns of an Anoa. Female.

Anoa Depressicornis.

Presented by Dr. Henderson, 1822.

Genus CAPRA.

Incisores $\frac{0}{8}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{6\ 6}{6\ 6}$

1019. The skull and horns of the Ibex, or Wild Goat.

Capra Ibex—*Lin*: (Bouquetin—*Buff*: Steinbock of the Germans.

Wild Goat—*Penn*:)

Fig.—*Buff*: *Hist. Nat.* xii. *pl.* 13. Hill, *Anim.* *pl.* 28. Shaw, *Zool.* ii. *pl.* 198.

Habitat.—The snowy regions of the Alps, Asturias, Pyrenees, Apennines, Tyrol, &c.

Hunterian.

1020. The horns of the Caucasian Ibex.

Capra Caucasica—*F. Cuv*:

Fig.—Guldenstœdt, *Act. Petrop.* 1779.

Habitat.—The summits of the Caucasian Mountains.

1021. The horns of a variety of the Ægagrus, or Wild Goat.

Capra Ægagrus. Var.?

Habitat.—The mountains of Persia, Caucasus, the Chorazan, &c.

The Ægagrus is considered as the original stock which has produced the common domestic variety, or C. Hircus.

These horns differ from those of the ordinary Ægagrus, in having only six nodules or irregular ridges on their anterior edge, widely distant from each other

1022. The frontlet and horns of the Bardah, or Wild Goat. From the Himalayan Mountains.

Capra Ægagrus. ? *Female*. ?

Fig.—Johnst: *Quad*: *pl.* 26. Shaw, *Zool.* ii. *pl.* 199.

Habitat.—Domesticated: most parts of the World.

The horns are slightly lyrated, 6 inches long, and $1\frac{3}{4}$ inch broad at their base, leaving a space of less than half an inch between them at their origin from the skull.

Presented by Lieut. Colonel Finch, 1830.

1023. The horns of a domestic Goat.

Capra Hircus—*Lin*: (Capra domestica—*Sloane*. Chèvre—*Buff* :)
Hunterian.

1024. The skeleton of the Nepaul Goat.

Capra Hircus Nepaulensis.

Habitat.—Nepaul in Hindostan.

Mus. Brookes.

1025. The horns of a four-horned Goat.

Capra Hircus Quadricornis.

Mus. Brookes.

1026. The horns of the Angora, or Shawl Goat.

Capra Hircus Angorensis—*Erxleb*:

Fig.—Shaw, *Zool*. ii. *pl*. 200. *Buff*: *Hist*. v. *pl*. 10, 11.

Habitat.—Angora.

Purchased 1812.

1027. The horns of the Jemlah Goat.

Capra Jemlahica.

Fig.—*Cuv*: *Règ. Anim*. *Griff*: *Translation*.

Habitat.—The Jemlah Chain of the Himalayan Mountains.

Presented by Lieut. Colonel Finch, 1830.

1028. The skull of a Goat from India. The horns deficient.

Species uncertain.

Capra ?

Sent to England by W. Bell, Esq.

Hunterian.

Genus Ovis.

Incisores $\frac{0}{8}$ Cuspidati $\frac{0}{0}$ Molares $\frac{6}{6}$

1029. The skull and horns of the American Argali.

Ovis Montana—*Geoff*:

Fig.—*Geoff*: *Ann. du Mus*. ii. *pl*. 60

Habitat.—The rocky mountains and North-West coast of North America.

Hunterian.

1030. The horns of the American Argali.

1031. The skeleton of a Ram.

Ovis Aries—*Lin*:

Fig.—Gesn: *Quad. p.* 872. *c. fig.* Buff: *Hist. Nat. v. pl.* 2.

Original drawing of the living animal, by R. Hills, Esq., in the Museum portfolio.

Habitat.—By domestication, most parts of the World.

Presented by Lord Clarendon, 1823.

1032. The skull and horns of a common Ram.

Ovis Aries.

Hunterian.

1033. The skull of a common Ram, the horns deficient.

Ovis Aries.

Hunterian.

1034. A longitudinal section of the skull and horn of a Ram.

Ovis Aries.

Presented by the late Henry Cline, Sen., Esq., 1824.

1035. Skull of a Sheep. Hornless breed.

Ovis Anglicus—*Erxleb*:

Habitat.—Most common in Lincolnshire.

Presented by the late Henry Cline, Sen., Esq., 1824.

1036. Horns of a Sheep. Merino variety.

Ovis Hispanicus—*Lin*:

Fig.—*Nouv. Dict. t. g.* 18. *f.* 1, 2.

Habitat.—Most parts of Spain.

Hunterian.

1037. Skull and Horns of a Ram. Merino var.

Ovis Hispanicus.

Hunterian.

1038. Skull and horns of a Ram. Merino var.

Ovis Hispanicus.

Hunterian.

1039. Skull and horns of a Ram. Merino var.

Ovis Hispanicus.

Hunterian.

1040. The skull and horns of a Corsican polycerate Sheep. Four horns.

Ovis Quadricornis. (Ovis Polyceratus—*Lin* :)*Fig.*—Penn : *Syn. pl.* 3. *f.* 2, 3.*Hunterian.*

1041. Skull and horns of a polycerate Sheep. Five horns.

Ovis Polyceratus.

Hunterian.

1042. Horns of a Barbary ? Ram.

Ovis Barbarus.

Hunterian.

1043. Frontlet and horns of an Asiatic Argali.

Ovis Ammon—*Erxleb* : (Capra Ammon—*Lin* :)*Fig.*—Bojanus, *Cran. Argalidis. pl.* 24, 25.

From the Himalayan Mountains.

In this specimen the horns have grown parallel to each other, and are firmly united throughout their whole extent, producing the appearance of a single horn, the extremity of which has been sawed off, most probably to relieve the animal from the inconvenience of its pressure upon the neck.

Presented by Lieut. Colonel Finch, 1830.

1044. Horn of a Ram, in longitudinal section, to show the extent of its cavity.

Hunterian.

1045. A portion of the superior maxillary bone of a Sheep, containing three molares.

The enamelled surfaces of which have assumed a metallic appearance.

Originally labelled, "*Presented by Dr. Needham, Oct. 20th, 1673.*"*Mus. Brit.*

1046. Three molares of a Sheep, having a similar appearance.

Mus. Brit.

1047. Two molares of a Sheep, in longitudinal and transverse sections, to show their structure.

Hunterian.

1048. Two of the anterior, or true ribs of a Sheep, connate.

Mus. Brit.

1049. A similar specimen.

In this, one of the ribs is bifid at its sternal extremity.

Mus. Brit.

Genus DAMALIS.

Incisores $\frac{0}{8}$

Cuspidati $\frac{0\ 0}{0\ 0}$

Molares $\frac{6\ 6}{6\ 6}$

Sub-Genus ACRONOTUS.

1050. The horns of the Bubalis, or Cervine Antelope.

Damalis Bubalis. (Antilope Bubalis—*Lin*: Le Bubale—*Buff*:)

Fig.—*Buff*: *Hist. Nat.* xii. *pl.* 37. Skeleton. *pl.* 38. *fig.* 1. Cranium.

Habitat.—Northern Africa.

Hunterian.

1051. The horns of the Caama.

Damalis Caama. (Antilope Caama—*Blainv*: Le Caama—*Cuv*:

Hartebeest of the Dutch Colonists.)

Fig.—*Buff*: *Hist. Nat.* xii. *pl.* 38. *f.* 2. Cranium.

Sparrm: *K. V. Handl.* 1779. *tab.* 5.

Habitat.—Caffraria.

Hunterian.

Sub-Genus BOSELAPHUS.

1052. The horns of the Impofofo, or Oreas. Male.

Damalis Oreas. (Eland Gazelle—*Sparrm*: Antilope Oreas—*Lin*:)

Fig.—*Buff*: *Hist. Nat.* xii. *pl.* 46. Horns.

Habitat.—Southern Africa.

1053. The horns of an Impoofo, or Oreas. Female.

Sub-Genus STREPSICEROS.

1054. The skull and horns of the Koodoo, or Striped Antelope. Male.

Damalis Strepsiceros. (Antelope Strepsiceros—*Pall* :

Condoma et Coesdoes—*Buff* :)

Fig.—*Buff* : *Hist. Nat.* xii. *pl.* 39. *fig.* 1, 2. Cranium and horns.

Daniell's Afric. Scen. No. vi.

Habitat.—Principally the rocky plains of the Karoo Mountains, Africa.

Hunterian.

1055. The skull and horns of a Koodoo. From the Cape of Good Hope.

Hunterian.

1056. The horns of a Koodoo. Male.

Hunterian.

1057. The horns of a Koodoo. Male.

Hunterian.

1058. The horns of a Koodoo. Male.

Purchased 1806.

1059. The horns of a Koodoo. Male.

Hunterian.

1060. The horns of a Koodoo. Male.

Mus. Lev.

1061. The horns of a Koodoo. Male.

Hunterian.

1062. The horns of a Koodoo.

Presented by Sir William Blizard, 1804.

Sub-Genus PORTAX.

1063. Horns of the Nyl-ghau, or White-footed Antelope.

Damalis Risia. (Antelope Picta—*Lin* : A. Tragocamelus—*Pall* :)

Fig.—Hunter, *Philos. Trans.* lxi. *pl.* 5. *Buff* : *Supp.* vi. *t.* 10, 11.

Habitat.—India.

Hunterian.

Tribe 5. BOVIDÆ.

Genus CATOBLEPAS.

Incisores $\frac{0}{8}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{6\ 6}{6\ 6}$

1064. The skeleton of the Gnöö. Male.

Catoblepas Gnu. (Antelope Gnu—*Lin*: Wildebeest of the Dutch Colonists.)

Fig.—Daniell's *Afric. Scen.* Shaw, *Zool.* ii. pl. 196.

Habitat.—Southern Africa: in the Karoo Plains.

1065. The head and horns of a Gnöö.

Catoblepas Gnu.

Hunterian.

Genus OVIBOS.

1066. The skull and horns of a Musk Ox. Male. (*Imperfect.*)

Ovibos Moschatus—*Blainv*: (Bos Moschatus—*Lin*: Bœuf Musqué—*Cuv*:)

Fig.—*Cuv*: *Oss. Foss.* iv. pl. 10. f. 17. Cranium.

Habitat.—The Polar regions of North America, &c.

Northern Expedition.

1067. The skull and horns of a Musk Ox. Female. (*Imperfect.*)

Ovibos Moschatus—*Blainv*:

Northern Expedition.

1068. The skull and horns of a Musk Ox. Male.

Ovibos Moschatus.

Hunterian.

1069. The skull and horns of a Musk Ox. Male.

Ovibos Moschatus.

Hunterian.

1070. The skull and horns of a Musk Ox. Male.

Ovibos Moschatus.

Hunterian.

Genus **Bos.**Sub-Genus **BUBALUS.****1071. The head and horns of the Cape Buffalo.***Bos Caffer*—*Lin*:*Fig.*—*Cuv*: *Oss. Foss.* iv. *pl.* 9. *f.* 15. Cranium.*Habitat.*—The interior of Africa.*Hunterian.***1072. The frontlet and horns of a Cape Buffalo.***Bos Caffer.**Hunterian.***1073. The frontlet and horns of a Cape Buffalo.***Bos Caffer.**Hunterian.***1074. A single horn of an Indian Buffalo?***Bos Bubalis*?*Hunterian.***1075. The frontlet and horns of the Arnee Ox.***Bos Arnee*—*Lin*:*Fig.*—*Cuv*: *Oss. Foss.* iv. *pl.* 9. *f.* 13. Cranium.*Blumenb*: *Abbild. t.* 63. *f.* Cranium.*Habitat.*—India; the Birman Empire; and the valleys to the south of the Himalayan Chain of Mountains. Found also in a domesticated state in the Malayan Peninsula, China, and the Indian Archipelago.*Presented by Dr. Buchan, 1810.*Sub-Genus **BISON.****1076. The horns of a young female Bison.***Bos Bison.* (*Bos Taurus Urus*—*Lin*: *Le Bison*—*Cuv*:)*Fig.*—*Bojanus, Nov. Act. Acad.* xiii. 2. *fig.* Skeleton.*Habitat.*—The forests of Southern Russia in Asia; the Caucasian and Carpathian Mountains, &c.*Hunterian.*

1077. A horn of an American Bison.

Bos Americanus—*Lin*: (Bison d'Amérique—*Buff*:)

Fig.—*Cuv*: *Oss. Foss.* iv. *pl.* 10. *f.* 3—6. Cranium.

Habitat.—The interior of North America.

Hunterian.

1078. A horn of an American Bison.

Hunterian.

1079. The frontlet and horns of the Gyll.

Bos Frontalis—*Lambert*. (*Bos Sylhetanus*—*F. Cuv*: et *Geoff*:)

Fig.—*Lin. Trans.* vii. *pl.* 4.

Habitat.—The mountain forests east of the Burrampootra; the mountains of Chitagong, &c.

Hunterian.

Sub-Genus TAURUS.

1080. The skeleton of the common Ox, or domestic Urus.

Bos Taurus—*Lin*: (Le Bœuf ordinaire—*Buff*: et *Cuv*:)

Fig.—*Shaw, Zool.* ii. *pl.* 208.

Habitat.—Originally in the forests of Middle Europe, Lithuania, &c.
at present found in its varieties in most parts of the civilized
World.

Hunterian.

1081. The skull of a Guernsey Bull.

Bos Taurus.

Presented by Professor Buckland, 1824.

1082. The skull of a hornless Ox.

Bos Taurus.

Presented by the late Henry Cline, Sen., Esq., 1824.

1083. The skull of a hornless Ox.

Bos Taurus.

Hunterian.

1084. The skull and horns of the Urus. Lithuanian var.

Bos Urus.

Hunterian.

1085. The skull of an Ox.

Bos Taurus.

Hunterian.

1086. The skull of an ox.

Bos Taurus.

Hunterian.

1087. The horns of a domestic Ox. Transylvanian breed.

Bos Taurus.

Hunterian.

1088. The horns of a domestic Ox. Italian breed.

Bos Taurus.

Hunterian.

1089. The horns of the Sanga, or Abyssinian Ox.

Bos Taurus. Var.—Abyssinicus.?

Fig.—Salt's *Travels in Abyssinia*.*Habitat.*—Abyssinia.*Presented by the late Henry Salt, Esq.*

The following extract connected with these extraordinary horns is from Mr. Salt's *Travels in Abyssinia*, p. 258, where he says:—" Here (Gibba) for the first time, I was gratified by the sight of the Galla Oxen, or Sanga, celebrated throughout Abyssinia for the remarkable size of their horns. Three of these animals were grazing among the other cattle, in perfect health; which circumstance, together with the testimony of the natives, ' that the size of the horns is in no instance ' occasioned by disease,' completely refutes the fanciful theory given by Mr. Bruce respecting this creature. It appears by the papers annexed to the last edition of Mr. Bruce's work, that he never met with the Sanga, but that he made many attempts to procure specimens of the horns through Yanni, a Greek, residing at Adowa. This old man very correctly speaks of them, in his letters, as being brought only by the Caflas from Antálo; and I have now ascertained that they are sent to

“ this country as valuable presents by the chiefs of the Galla, whose
 “ tribes are spread to the southward of Enderta. So far then, as to the
 “ description of the horns and the purposes to which they are applied by
 “ the Abyssinians, Mr. Bruce’s statements may be considered to be cor-
 “ rect; but with respect to ‘ the disease which occasions their size,
 “ ‘ probably derived from their pasture and climate;’ ‘ the care taken of
 “ ‘ them to encourage the progress of this disease;’ ‘ the emaciation of
 “ ‘ the animal;’ and the ‘ extending of the disorder to the spine of the
 “ ‘ neck, which at last becomes callous, so that it is not any longer in
 “ ‘ the power of the animal to lift its head;’ they all prove to be merely
 “ ingenious conjectures, thrown out by the author solely for the exercise
 “ of his own ingenuity. I should not venture to speak so positively on
 “ this matter, had I not indisputably ascertained the facts; for the Ras
 “ having subsequently made me a present of three of these animals alive,
 “ I found them not only in excellent health, but so exceedingly wild,
 “ that I was obliged to have them shot.

“ The horns of one of these are now deposited in the Museum of the
 “ College of Surgeons, and a still larger pair are placed in the collection
 “ of Lord Valentia (now Earl Mountnorris) at Arley Hall. The length
 “ of the largest horn of this description which I met with, was nearly
 “ four feet, and its circumference at the base twenty-one inches. It
 “ might have been expected, that the animal carrying horns of so extra-
 “ ordinary a magnitude, would have proved larger than others belonging
 “ to the same genus; but in every instance which came under my obser-
 “ vation, this was by no means the case.”

1090. The skeleton of a small Indian Ox or Zebu. Male.

Bos Taurus. Var.

Fig.—Shaw, *Zool.* ii. *pl.* 209.

Habitat.—India.

This animal was brought from Bengal: it died in the menagerie at Exeter 'Change.

Purchased.

1091. A pair of large horns of an Ox.

Bos Taurus.? Var.

Brought from America about the year 1770, by Admiral Warren. Their length from tip to tip, following their greatest curve, is ten feet four inches.

Presented by the late William Long, Esq., 1811.

1092. A pair of small horns of an Ox. From India.

Bos Taurus.? Var.

Hunterian.

1093. Longitudinal sections of a molaris of the upper jaw of a Cow, to show its structure. One section is polished.

Presented by Sir E. Home, Bart., 1807.

1094. A transverse section of a molaris of the upper jaw of a Cow.

Hunterian.

ORDER VIII.—CETACEA.

Family 1. SIRENIA. (Herbivorous Cetacea.)

Genus MANATUS.

Young—Incisores $\frac{2}{0}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{9\ 9}{9\ 9}$

Adult—Incisores $\frac{0}{0}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{2\ 8}{8\ 8}$

1095. Skeleton of a female Manatee. From Jamaica.

Manatus Americanus. (Trichechus Manatus—*Lin*: Lamantin—*Cuv*:)

Fig.—*Phil. Trans.* Vol. cxi. pl. xxvii.

Sent to England by the Duke of Manchester, Governor of Jamaica.

Presented by Sir E. Home, Bart., 1821.

1096. The skull and under jaw of a Manatee. (*Imperfect.*)

Manatus Americanus.

Hunterian.

1097. A rib of a Manatee.

Mus. Brit.

1098. A rib of a Manatee.

Mus. Brit.

1099. A rib of a Manatee.

Mus. Brit.

1100. A rib of a Manatee.

Mus. Brit.

1101. A rib of a Manatee.

Presented by Sir A. Carlisle, 1827.

1102. A rib of a Manatee.

Hunterian.

1103. A transverse section of the rib of a Manatee.

Hunterian.

1104. A transverse section of a molaris of a Manatee.

Presented by Sir A. Cooper, Bart.

Genus HALLCORE—*Illiger*. (DUGONG.)

Young—Incisores $\frac{4}{8}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{5\ 5}{5\ 5}$

Adult—Incisores $\frac{2}{0}$ Cuspidati $\frac{0\ 0}{0\ 0}$ Molares $\frac{3\ 3}{3\ 3}$

1105. The skeleton of a young female Dugong.

Hallicore Indicus. (*Trichechus Dugong*—*Lin*: Indian Walrus—*Penn*:
Ikan Duyong of the Malays.)

Fig.—*Phil. Trans.* Vol. cxi. pl. xx.

Sent from Sumatra by Sir T. S. Raffles.

Presented by Sir E. Home, Bart., 1821.

1106. The skull of an adult male Dugong.

Hallicore Indicus.

Presented by Sir E. Home, Bart.

1107. The lower jaw of a Dugong.

Hunterian.

1108. A scapula of the same animal.

Hunterian.

1109. The deciduous or milk tusks of a young Dugong.

Presented by the late Sir T. S. Raffles, 1820.

1110. Six molares from the upper jaw of a Dugong, and one in transverse section for structure.

Presented by Sir E. Home, Bart.

1111. A molaris of a Dugong, in longitudinal section, for structure.

Presented by Sir A. Cooper, Bart.

1112. Cochleæ and stapides of a Dugong.

Presented by the late Sir T. S. Raffles, 1820.

1113. The alveolar tusk of a Dugong.

Mus. Brit.

Family 2. CETÆ.

Genus DELPHINUS.—(*Lin*:)

Teeth of one kind, from $\frac{8\ 4}{8\ 4}$ to $\frac{9\ 5}{9\ 5}$

1114. The skeleton of the common Dolphin.

Delphinus Delphis—*Lin*: *Lacép*: *Bonnaterre*, &c.

Fig.—*Lacép*: *Cet. pl.* xiii. *f.* 1.

Cuv: *Oss. Foss.* v. *pl.* xxi. *f.* 9, 10. *Cranium*.

Habitat.—The European Seas.

Presented by Sir E. Home, Bart.

1115. The skeleton of the white-nosed Dolphin.

Delphinus leucoramphus—*Péron*.

Fig.—*Voy. de la Coquille*, *pl.* 9. (2.)

Habitat.—The Australasian Seas.

Mus. Brookes.

1116. The skull of a Dolphin.

Delphinus Delphis.

Hunterian.

1117. The skull of a Dolphin.

Delphinus Delphis.

Mus. Lev. 1806.

1118. The skull of a Dolphin.

Delphinus Delphis.

Hunterian.

1119. The skull of a Dolphin.

Delphinus Delphis.

Hunterian.

1120. The skull of a Dolphin.

Delphinus Delphis.

Mus. Brit.

1121. The extremity of the upper jaw of a Dolphin, in which the alveolar cavities, on each side, are laid open, and the cavities of the teeth exposed by section.

Hunterian.

1122. The lower jaw of a Dolphin.

Hunterian.

1123. The cranium of the common Dolphin, divided by a vertical section, to expose the cavity.

Delphinus Delphis.

Hunterian.

1124. Posterior part of the cranium of a Dolphin. Female.

Delphinus Delphis.

Hunterian.

1125. The skeleton of the great Dolphin. Female.

Teeth of one kind, from $\frac{4\ 2}{4\ 2}$ to $\frac{4\ 6}{4\ 6}$ Delphinus Tursio—*Fab*: (Grand Dauphin ou Souffleur—*Cuv*:)*Fig.*—Hunter, *Philos. Trans.* 1787. *pl.* xviii. *Cuv*: *Oss. Foss.* v. 1. *pl.* 21, 23.*Habitat.*—The Mediterranean and Gröenland Seas.

This animal, in company with a male, was taken by some fishermen with nets in shoal water, in a small bay below the Nore, June, 1828. It survived many hours after having been dragged out of the water; during which time it emitted a sound not unlike the bellowing of a calf. The body was obtained, and presented to the Museum by

John Howship, Esq., 1828.

1126. The skull of the great Dolphin.

Delph. Tursio.

Mus. Brookes.

1127. The extremity of the upper jaw of a Dolphin, left side, showing the alveolar cavities.

Hunterian.

1128. Half of the lower jaw of a Dolphin. Teeth deficient.

Hunterian.

1129. The extremity of the upper jaw of the fronted Dolphin; on one side the teeth are exposed in their alveolar cavities.

Dentition as in Del. Tursio.

Delphinus frontatus.

Fig.—Cuv: *Oss. Foss.* v. *pl.* xxi. *f.* 7, 8. Cranium.

Habitat.—The European Seas. ?

Hunterian.

1130. The lower jaw of the fronted Dolphin.

Hunterian.

1131. The skull of the fronted Dolphin. (*Imperfect.*)

Mus. Brit.

1132. The lower jaw of the fronted Dolphin.

Mus. Brookes.

1133. The upper and lower jaws of the Gangetic or slender-beaked Dolphin. Teeth of one kind $\frac{60}{60}$

Delphinus Rostratus—*Shaw.* (D. Gangeticus—*Home.*)

Fig.—*Philos. Trans.* Vol. cviii. *pl.* xx.

Cuv: *Oss. Foss.* v. *p.* xxii. *f.* 8, 9, 10. Cranium.

For a description of the external figure of the animal, *vide* an account by the late Dr. Roxburgh, in the seventh volume of the *Asiatic Researches*, for the year 1781.

The following is extracted from Home's *Comp. Anat.* Vol. III. p. 115.
 “ A specimen of the upper and lower jaw of the *delphinus gangeticus*
 “ was given to me, seventeen years ago, by the late Sir Joseph Banks,
 “ and has been deposited ever since in the Hunterian Collection; but it was
 “ only the other day that an accidental reference to the *Asiatic Researches*
 “ led us to discover the animal to which they belong. The singularity

“ of the form of the teeth made this specimen always a remarkable
 “ object; and now the animal is known, a description of them becomes
 “ interesting and highly deserving of attention.

“ The jaws and teeth form the most remarkable characters of this
 “ species of delphinus; and a knowledge of them will not only interest
 “ the naturalist and comparative anatomist, but enable the geologist,
 “ when fossil teeth are found of this shape, readily to determine the
 “ species of animal to which they had belonged. These teeth, as is
 “ common in those of the whale tribe, have the first rudiments formed
 “ in the gum, from which the tooth grows in both directions: upwards
 “ through the gum in the form of the point of a flattened cone, which is
 “ coated with enamel; and downwards towards the jaw, increasing
 “ considerably in breadth, but not in thickness, till it is at last imbedded
 “ in the substance of the jaw itself: the lower portion has no enamel.
 “ The change that takes place in the form of the tooth as it wears away
 “ from long use, is more remarkable than in most other teeth; for the
 “ perfect tooth has a tolerably sharp enamelled point, while the worn
 “ one has a curved blunted cutting edge. The teeth in front of the jaw
 “ are more like the incisors in other animals. The whole number in both
 “ jaws exactly corresponds with that given by Dr. Roxburgh, and iden-
 “ tifies these jaws as belonging to the animal which he has described.”

The specimen above alluded to was given by Dr. Roxburgh to Sir
 J. Banks, and by him presented to the Museum, through the hands of

Sir E. Home, Bart.

Sub-Genus PHOCÆNA.

Teeth of one kind, from $\frac{40}{40}$ to $\frac{46}{46}$

1134. A longitudinal section of the skull of a Porpesse.

Delphinus Phocæna—*Lin*: (Le Dauphin Marsouin—*Lacep.*)

Fig.—*Cuv*: *Oss. Foss.* v. 1. *pl.* xxi. *f.* 1, 2.

Habitat.—The European Seas.

1135. The bones of one of the anterior extremities of a Porpesse.

Hunterian.

1136. The skull of a large Grampus.

Teeth of one kind, $\frac{2}{2} \frac{2}{2}$

Delphinus Grampus. (*Delphinus Orca*—*Lin*: *Delphinus Ventricosus*—*Hunter*
Dauphin Epaulard—*Bonn*: *Epaulard*—*Cuv*:)

Fig.—*Hunter, Phil. Trans.* 1787. *pl.* xvi. *Lacép*: *Cét*: 7. *pl.* 15. *f.* 3.

Shaw, Zool. ii. *pl.* 232. *Cuv*: *Oss. Foss.* v. *pl.* xxii. *f.* 3, 4. *Cranium.*

Habitat.—The North Atlantic, principally.

Hunterian.

1137. The skull of a Grampus.

Delphinus Grampus.

Presented by Lieut. Colquhoun, 1823.

1138. The skull of a small Grampus.

Delphinus Grampus.

Hunterian.

1139. The skull of the round or globe-headed Dolphin.

Teeth of one kind, from $\frac{2}{2} \frac{0}{0}$ to $\frac{2}{2} \frac{8}{8}$

Delphinus Globiceps. (*Delphinus deductor*—*Scoresby.*)

Fig.—*Cuv*: *Ann. du Mus.* xix. *pl.* i. *f.* 2 and 3. et *Oss. Foss.* v. *p.* xxi.
f. 11, 12, 13. *Cranium.*

Habitat.—The Atlantic Ocean.

This specimen was brought from the Cape of Good Hope, where, among other species of *Delphinus*, it was collected by M. Villet.

Purchased 1828.

Sub-Genus DELPHINAPTERUS.—(*Lacép*:)

Teeth of one kind $\frac{1}{1} \frac{8}{6}$

1140. The skull of the Beluga, or White Dolphin.

Delphinus Leucas—*Lin*: (*Delphinus Albicans*—*Fab*:)

Fig.—*Cuv*: *Oss. Foss.* v. *pl.* 5 and 6. *Shaw, Zool.* ii. *t.* 232.

Pall: *Reise*, iii. *t.* 79.

Habitat.—The Northern Seas.

Mus. Brookes.

1141. The lower jaw of the white Dolphin.

Hunterian.

1142. Right half of the lower jaw of the white Dolphin, showing the alveolar cavities.

Mus. Brit.

1143. Section of the cranium of the white Dolphin, exposing its cavity.
Hunterian.

1144. The cornua of the os hyoides of a Dolphin.

Hunterian.

Sub-Genus HYPEROODON.—(*Lacépède.*)

Two small alveolar teeth at the extremity of the lower jaw, not exerted,
being only visible in the skeleton.

1145. The skeleton of the bident Dolphin, or Bottle-nose Whale.

Delphinus Hyperoodon. (Del. Bidens--*Shaw.* *Heterodon Hunteri*--*Less.*

Del. edentulus—*Schreb.*: *Balæna rostrata*—*Penn.* :)

This animal was taken in the Thames, near London Bridge, in the year 1783, and is described by John Hunter, in the *Philosophical Transactions*, for the year 1787, *pl.* xix. It was considered by him to be of the same species as that of which a female was caught at Malden, in Essex, and described by Dale in his *History of Harwich*, 1730. 4to. *p.* 411. The skeleton does not appear to be that of an adult animal, and Cuvier, in the *Ossements Fossiles*. Vol. V. 1. *p.* 327. notices this circumstance:—

“ Le Squelette d'*hyperoodon* conservé au Muséum des Chirurgiens de
“ Londres, est long de vingt-un pieds, et cependant les épiphyses sont
“ encore séparées à tous les os.”

Hunterian.

1146. The extremity of the under jaw of a bident Dolphin, showing
the two concealed or alveolar teeth in their cavities.

Hunterian.

Genus MONODON.—(*Lin.* :)

Two horizontal teeth in the upper jaw: one concealed in the alveolar canal, the
other exerted to a great extent. In the female, both teeth are concealed.

1147. The skeleton of a Narwhal. Female.

Monodon Monoceros—*Lin.* : (*Monodon Narwhal*—*Fab.* :)

Fig.—Cuv: *Oss. Foss.* v. 1. *pl.* xxii. *f.* 7. Cranium.

Habitat.—The North Seas.

Mus. Brookes.

1148. Skull of a Narwhal. Female.

The alveolar tusks, one of which is in longitudinal section, are exposed in their cavities.

Monodon Monoceros.

Hunterian.

1149. The skull of a large male Narwhal, with the exerted tusk.

Monodon Monoceros.

In this specimen, the single alveolar tusk is exposed in its cavity.

Hunterian.

1150. The skull of a Narwhal. Male.

The alveolar tusk also exposed.

Monodon Monoceros.

Hunterian.

1151. The skull of a Narwhal. Male. (*Imperfect.*)

The alveolar tusk exposed, and in longitudinal section; the large exerted tusk is deficient.

Monodon Monoceros.

Hunterian.

1152. The tusk of a Narwhal. Male.

Monodon Monoceros.

Hunterian.

1153. The tusk of a Narwhal. Male.

Hunterian.

1154. The under jaw of a Narwhal, separated at the symphysis.

Mus. Brit.

1155. Half of the lower jaw of a Narwhal, left side.

Mus. Brit.

1156. A longitudinal section of the tusk of a male Narwhal, to show the extent of its cavity.

Hunterian.

1157. A longitudinal section of the tusk of a Narwhal.

Hunterian.

1158. The tusk of a Narwhal.

Hunterian.

1159. The tusk of a Narwhal.

Hunterian.

1160. A longitudinal section of the tusk of a Narwhal.

Hunterian.

1161. The tusk of a Narwhal.

Hunterian.

1162. The tusk of a Narwhal.

Presented by the late Sir Charles Blicke, 1808.

1163. The tusk of a Narwhal.

Hunterian.

1164. The tusk of a Narwhal.

Hunterian.

1165. The tusk of a Narwhal, with a portion of the skull attached.

Hunterian.

1166. The tusk of a Narwhal.

Hunterian.

1167. The alveolar, or concealed tusk of a Narwhal.

Hunterian.

1168. The alveolar tusk of a Narwhal.

Presented by the late Henry Cline, Sen., Esq., 1824.

Genus PHYSETER.—(*Lin* :)

Sub-Genus CATODON.—(*Lacép* :)

Teeth in the lower jaw only, from $\frac{0}{4} \frac{0}{0}$ to $\frac{0}{5} \frac{0}{0}$

1169. Half of the lower jaw of the great-headed Cachalot, or Sperma-ceti Whale ; with the teeth.

Physeter macrocephalus—*Lin* :

Fig.—*Cuv* : *Oss. Foss.* v. 1. *pl.* xxiv. *f.* 1, 2, 3, 4, 5. *Cranium.*

Habitat.—The North Seas.

Mus. Brookes.

1170. The corresponding half of the same jaw.

Mus. Brookes.

1171. Half of the lower jaw of a Sperma-ceti Whale. Teeth deficient.
Hunterian.

1172. The corresponding half of the jaw. Teeth deficient.
Hunterian.

1173. The lower jaw of the lesser Cachalot, with the teeth.

Physeter Catodon—*Lin* : (Cetus minor. Briss :))

Habitat.—The Northern Seas.

Mus. Brookes.

The following extract, from the *Oss. Foss.* Vol. I. p. 336, serves to remove, in a great degree, the perplexities arising from the confusion of synonyms of different authors, regarding this species; a confusion, indeed, in which the whole of the Cetacea seem still much involved.

“ En 1789, Bonnaterre, établit un *macrocephale* auquel il rapporte les
 “ individus échoués à Audierne en 1784, dont nous reparlerons et dont
 “ il donne une figure et les dimensions; mais il définit ce *macrocephale*
 “ autrement que Linnæus et qu’Artedi, *pinna spuria in dorso, dentibus*
 “ *inflexis, apice acutiusculo*; un *petit* qu’il appelle en latin *catodon*, et
 “ auquel il donne subitement *pinnam asperam in dorso*, tandis que tous
 “ les autres le font *dorso impinni*; il le croit le *Svineval* des *Norvégiens*,
 “ et fait graver sous ce nom une tête osseuse de vieux *globiceps*, en sorte
 “ qu’ à son égard il brouille tout ce que donnoient les synonymes
 “ précédens; un *trumpo* qui est celui de Dudley, tandis que Dudley
 “ assure lui-même ne décrire que l’espèce ordinaire, et à ce cachalot de
 “ Dudley il rapporte l’individu échoué à Bayonne en 1741, et l’individu
 “ de *Hasæus*; un *cachalot cylindrique*, qui est le cachalot d’Eiderstadt,
 “ figuré par Anderson, mais qu’Anderson lui-même rapportoit à celui
 “ d’*Hasæus*; un *microps* qu’il croit le même que celui de Linnæus, mais
 “ qu’il décrit d’après Fabricius, et qui seroit par conséquent un *delphinus*
 “ *globiceps* ou autre voisin; enfin un *mular* à haute dorsale, le même que
 “ celui de Brisson, le même que le troisième de Sibbald ou celui des
 “ Orcades, le même que le *physeter tursio* de Linnæus, et par conséquent
 “ encore un *globiceps* ou un *grampus*.”

1174. A single tooth from the lower jaw of the Great-headed Cachalot.
Physeter macrocephalus.
Hunterian.
1175. A tooth of the Great-headed Cachalot.
Mus. Brit.
1176. Two teeth of the Great-headed Cachalot.
Presented by Okey Belfour, Esq.
1177. A tooth of the Great-headed Cachalot.
Hunterian.
1178. A tooth of the Great-headed Cachalot.
Hunterian.
1179. A tooth of the Great-headed Cachalot.
Hunterian.
1180. A tooth of the Great-headed Cachalot.
Hunterian.
1181. A tooth of the Great-headed Cachalot.
Mus. Brit.
1182. A tooth of the Great-headed Cachalot.
Mus. Brit.
1183. A tooth of the Great-headed Cachalot.
Purchased.
1184. A tooth of the Great-headed Cachalot, in longitudinal section,
 for structure. One half polished.
Presented by Sir E. Home, Bart., 1807.
1185. A tooth of the Great-headed Cachalot, in transverse section.
Hunterian.
1186. A rib of the Great-headed Cachalot.
 Five feet three inches in length.
Presented by Sir A. Carlisle, 1823.
1187. A rib of the Great-headed Cachalot.
Presented by Sir A. Carlisle, 1823.
1188. One of the pelvic bones of a Whale.
Physeter ?
Presented by Professor Buckland, 1817.

1189. A tooth of the High-finned Cachalot.

Physeter Tursio. ? (P. dorsi pinna altissima, apice dentium plano.--*Lin* :
Mus. Brit.

1190. A tooth of the High-finned Cachalot.

Mus. Brit.

1191. Two teeth of the High-finned Cachalot.

Mus. Brit.

1192. Two teeth of the High-finned Cachalot. ?

Mus. Brit.

1193. Two teeth of the High-finned Cachalot. ?

Mus. Brit.

1194. Two teeth of the High-finned Cachalot. ?

Mus. Brit.

1195. A single tooth of the lesser Cachalot.

Mus. Brit.

1196. A tray containing six teeth of the lesser Cachalot.

Hunterian.

Genus BALÆNA.—(*Lin* :)

No Teeth; Palate furnished on each side with Corneous laminæ.

1197. Half of the lower jaw of the common Whale-bone Whale.

Balæna Mysticetus—*Lin* :

Fig.—*Cuv* : *Oss. Foss.* v. 1. *pl.* xxv. *f.* 9, 10, 11. Cranium.

Habitat.—The Atlantic and Polar Seas.

Hunterian.

1198. The corresponding half of the jaw.

Hunterian.

Sub-Genus BALÆNOPTERA.—(*Lacép* :)

1199. Skeleton of a small Piked Whale, or Jubarta.

Balæna Boops—*Lin* : (Pike-headed Mysticete—*Shaw*.)

Fig.—*Bonnet* : *Cét* : t. 3. *f.* 2.

Habitat.—The Gröenland Seas.

Cuvier considers this (the Balæna rostrata of Hunter, Bonnaterre, and Fabricius) as only differing from the Balæna Boops in size.

Hunterian.

1200. A portion of the palate of a young Piked Whale, showing the arrangement of the laminæ.

Balæna Boops.

Hunterian.

1201. A single blade, or lamina of whale-bone, of the Large-headed Mysticete.

Eleven feet nine inches in length.

Hunterian.

1202. A single blade or lamina of whale-bone, of the Large-headed Mysticete.

Hunterian.

CLASS AVES.

Order I. ACCIPITRES.—(*Lin.*)

Genus VULTUR.—(*Lin.*)

1203. The skeleton of the Pondicherry or Royal Vulture.

Vultur Ponticerianus—*Lath : esp.* 14.

Fig.—Sonnerat, *Voy. aux Indes.* iv. *pl.* 104. Temm : *pl.* Col. 2.

Habitat.—Bengal, and the Islands of Java and Sumatra.

Cuvier considers this species as very nearly allied to the Vautour Oricou, (*Vultur Auricularis*) differing only, in having the lateral crests less elevated, and the beak inferior in strength. *Règne Animal*, ed. 1828. p. 315.

Hunterian.

1204. The skeleton of the Arabian Vulture.

Vultur Monachus—*Gm.* : (Monk Vulture—*Shaw.*)

Fig.—Temm : *pl. col.* 426. Levaill : *Afriq. pl.* 12.

Habitat.—Africa.

By some authors it is stated that this species exists in China, and also about the Pyrenees; and to have been seen at Gibraltar, though by no means

common. Levaillant, however, fixes its habitat in Africa, and not in China.
Vide Traité d'ornithologie, par Lesson, Cah. 1. p. 24.

Hunterian.

Genus SARCORAMPHUS.—(*Duméril.*)

1205. The skeleton of the King Vulture.

Sarcoramphus Papa—*Dum*: (Roi des Vautours—*Buff*:

Vultur Papa—*Lin*: *Gm*: *Lath*:)

Fig.—Edwards, *pl.* 2. Lesson, *Atlas*, *pl.* 5. *f.* 1. Vieill: *Gal.* *pl.* 3.

Habitat.—Brazil, Guiana, Mexico, and Peru.

Mus. Brookes.

Genus GYPAETOS.—(*Storr.*)

1206. The skeleton of the Griffon of the Alps.

Gypaetos barbatus—*Cuv*: (*Vultur barbatus*—*Gm*:

Læmmer-Geyer, of the Swiss.)

Fig.—Edwards, *pl.* 106. Lesson, *Atlas*, *pl.* 6. *f.* 2.

Habitat.—The Alps, Pyrenées; in Abyssinia, Egypt, Siberia, &c.

Mus. Brookes.

Genus SERPENTARIUS.—(*Lacép, Cuv*:)

1207. The skeleton of the Messenger, or Secretary Vulture.

Serpentarius cristatus. (*Falco Serpentarius*—*Lin*:

Vultur Serpentarius—*Lath*: *Secretarius reptilivorus*—*Daud*:

Gypogeranus Serpentarius—*Illig*:)

Fig.—*Lath*: *Ornith.* *pl.* 2. Levaill: *Afriq.* *pl.* 25.

Habitat.—Africa.

This animal died in the menagerie at Exeter 'Change.

Lesson, in his "*Traité d'Ornithologie*," places this Genus in the first section of Accipitres, which he denominates "*Les Accipitres-Gallinacées*," to distinguish it from "*Les Accipitres Diurne*," which include the Genera *Vultur*, *Falco*, &c.

Purchased.

Genus FALCO.—(*Lin.* :)Sub-Genus AQUILA.—(*Cuv.* :)

1208. The skull of the Imperial Eagle.

Falco imperialis—*Bechst.* : Aquila heliaca—*Savig.* :

Aigle de Thèbes—*Vieill.* :)

Fig.—*Savig.* : *Ois. d'Egypte*, pl. 12. *Temm.* : pl. col. 151.

Habitat.—Southern Europe, and the Northern parts of Africa.

Hunterian.

1209. The sternum and furculum of the Royal or Golden Eagle.

Falco chrysaetos—*Temm.* : *Lath.* : &c. (Falco fulvus, melanætos et niger—*Gmel.* : Aquila Regia—*Lesson.*)

Fig.—*Lesson*, *Atlas*, pl. 8. f. 1. *Temm.* : *ent.* 409, 410.

Habitat.—The Northern mountainous parts of Europe; found also in Asia, North America, and Africa.

This specimen was from an adult animal which died in the menagerie at Exeter 'Change, 1820.

Presented by W. Clift.

1210. The skull of a Golden Eagle. ? From the Himalayan mountains.

Falco chrysaetos. ?

Presented by Lieut. Colonel Finch, 1830.

Sub-Genus HALIÆTUS.—(*Savig.* :)

1211. The skeleton of the Osprey, or White-tailed Fishing Eagle.

Haliætus nisus—*Savig.* :

(Falco ossifragus, albicilla, et albicaudatus, *Gmel.* : *Lath.* : &c.

Pygargue orfraie—*Less.* :)

Fig.—*Lesson*, *Atlas*, pl. 8. f. 2.

Habitat.—The Northern parts of Europe.

This animal died in the gardens of the Zoological Society.

Presented by Robert Keate, Esq., 1830.

1212. The skull of the White-headed ? Fishing Eagle.

Haliæetus leucocephalus. ? (*Falco leucocephalus*—*Gm*.)

Fig.—Wils : *Am. Ornith.* iv. *pl.* 36.

Habitat.—North America.

Hunterian.

Sub-Genus *NISUS*.—(*Cuv*.)

1213. The skeleton of the Sparrow-hawk.

Nisus communis—*Cuv* : (*Falco nisus*—*Lin*.)

Fig.—Buff : *Enl.* 412 et 467. Naum : *pl.* 19 et 20.

Habitat.—Common in most parts of Europe.

An animal of this species was taken by M. Dussumier between Borneo and Cochin-China, which in no respect differed from the common European species. It is also found in Egypt.

Mus. Brookes.

Sub-Genus *DÆDALION*.—(*Savig*.)

1214. The skeleton of the Gos-hawk.

Dædalion palumbarius—*Savig* : (*Falco palumbarius*—*Lin*.)

Fig.—Buff : *Enl.* 418 et 461.

Habitat.—Most parts of Europe.

Hunterian.

Sub-Genus *FALCO*.—(*Cuv*.)

1215. The skeleton of a young Peregrine Falcon.

Falco Peregrinus—*Gm* : *Temm* :

Fig.—Lesson, *Atlas*, *pl.* 16. *f.* 1.

Habitat.—Europe.

Presented by Mr. J. Abernethy, 1830.

Genus *STRIX*.—(*Lin*.)Sub-Genus *SYRNIUM*.—(*Savig* : *Cuv*.)

1216. The skeleton of the Wood Owl.

Strix aluco et Stridula—*Lin* : (*Syrnium aluco*—*Savig* :

Strix Sylvatica—*Shaw*.)

Fig.—Lesson, *Atlas*, *pl.* 17. *f.* 2.

Habitat.—Europe.

Presented by W. Clift.

1217. The skull of the Wood Owl.

*Strix aluco.**Presented by W. Clift, 1820.*

1218. The skull of a Wood Owl.

*Strix aluco.**Hunterian.*Sub-Genus BUBO.—(*Cuv* :)

1219. The skeleton of the Grand Duke, or Great-horned Owl.

Strix Bubo—Gmel : *Bubo Europæus—Cuv* :)*Fig.*—Shaw, *Zool*.vii.pl.28. Levaill: *Afriq*.pl.40. Lesson, *Atlas*, pl.17.f.1.*Habitat.*—Various parts of Europe: particularly the large forests of Hungary, Russia, and Germany, but rare in France.*Mus. Brookes.*ORDER PASSERES.—(*DENTIROSTRES—Cuv* :)Genus TURDUS.—(*Lin* :)

1220. The skull of the Fieldfare Thrush.

Turdus pilaris—Lin : (*La Litorne*, of French authors.)*Habitat.*—Various parts of Europe.*Presented by Dr. Leach, 1824.*

1221. The skull of the Singing Thrush.

Turdus musicus—Lin : (*La Grive*, of French authors.)*Habitat.*—Europe.*Presented by Dr. Leach, 1824.*

1222. The skull of the Red-wing Thrush.

Turdus iliacus—Lin : (*Le mauvis*, of French authors.)*Habitat.*—Europe.*Presented by Dr. Leach, 1824.*Genus MOTACILLA.—(*Lin* :)Sub-Genus CURRUCA.—(*Bechst* :)

1223. The skeleton of the Nightingale.

Motacilla lusciniæ—Lin : (*Sylvia lusciniæ—Lath* :*Habitat.*—Europe: also in some parts of Asia and Africa.*Presented by the late Henry Cline, Sen., Esq., 1824.*

1224. The skull of the Hedge Sparrow, or Warbler.

Motacilla modularis—*Lin*: (*Sylvia modularis*—*Lath*:)*Habitat*.—Europe.*Presented by Dr. Leach, 1824.*Sub-Genus *REGULUS*.—(*Cuv*:)

1225. The skull of the Golden-crested Wren.

Motacilla regulus—*Lin*: (Le Roitelet, of French authors.)*Habitat*.—Europe.*Presented by Dr. Leach, 1824.*Sub-Genus *MOTACILLA*.—(*Cuv*:)

1226. The skull of the White Wag-tail.

Motacilla alba et cinerea—*Lin*: (Le Hochequeue, of French authors.)*Habitat*.—Europe.Genus *CAPRIMULGUS*.—(*Lin*:)

1227. The skull of the European Goat-sucker.

Caprimulgus Europæas—*Lin*: (L'Engoulevent, of French authors.)*Habitat*.—Europe, Africa, and America: also found in New Holland.Section *CONIROSTRES*.—(*Cuv*:)Genus *ALAUDA*.—(*Lin*:)

1228. The skeleton of the Lark.

Alauda arvensis—*Lath*: (L'Alouette des Champs, of French authors.)*Habitat*.—Europe.*Presented by Robert Willis, Esq., 1827.*Genus *PARUS*.—(*Lin*:)

1229. The skull of the great Titmouse.

Parus major—*Lin*: (La Charbonnière, of French authors.)*Habitat*.—Europe.*Presented by Dr. Leach, 1824.*

Genus EMBERIZA.—(*Lin* :)

1230. The skull of the common or Yellow Bunting.

Emberiza citrinella—*Lin* : (Le Bruant commun, of French authors.)

Habitat.—Europe.

Presented by Dr. Leach, 1824.

1231. The skull of the Snow Bunting.

Emberiza nivalis—*Lin* : (Le Bruant de neige, of French authors.)

Fig.—Wilson's *Am. Ornith.* iii. pl. 3. f. 2.

Habitat.—Europe, and North America.

Presented by Dr. Leach, 1824.

Genus FRINGILLA.—(*Lin* :)

1232. The skeleton of the common Sparrow.

Fringilla domestica—*Lin* : (Le Moineau domestique, of French authors.)

Habitat.—Europe.

Presented by W. H. Clift, 1830.

Sub-Genus CARDUELIS.—(*Cuv* :)

1233. The skull of the Goldfinch.

Fringilla carduelis—*Lin* : (Le Chardonneret ordinaire, of French authors.)

Habitat.—Europe.

Presented by Dr. Leach, 1824.

1234. The skull of a Goldfinch.

Fringilla carduelis.

Presented by Dr. Leach, 1824.

1235. The skull of the Siskin.

Fringilla spinus—*Lin* : (Le Tarin commun, of French authors.)

Habitat.—Europe.

Presented by Dr. Leach, 1824.

1236. The skull of the Canary-finch.

Fringilla Canaria—*Lin* : (Le Serin des Canaries, of French authors.)

Habitat.—Europe, &c.

?

Presented by Dr. Leach, 1824.

Genus COCCOTHAUSTES.—(*Cuv.:*)

1237. The skull of the Cardinal Grikeck, or Gros-beak.

Loxia coccothraustes—*Lin:* (Le Gros-bec commun, of French authors.)

Fig.—Wilson's *Am. Ornith.* ii. pl. 2. f. 1, 2.

Habitat.—North America.

Presented by Dr. Leach, 1824.

Genus LOXIA—(*Briss.:*)

1238. The skull of the Cross-bill.

Loxia curvirostra—*Lin:* (Le gros-bec d'Amerique, of French authors.)

Habitat.—Europe.

Presented by Sir E. Home, Bart.

1239. The skull of the Cross-bill.

Loxia curvirostra.

Presented by Sir E. Home, Bart.

Genus STURNUS.—(*Lin.:*)

1240. The skull of the common Starling.

Sturnus vulgaris—*Lin:* (L'Etourneau commun, of French authors.)

Habitat.—Most parts of the Old Continent.

Presented by Dr. Leach, 1824.

Genus CORVUS.—(*Lin.:*)

1241. The skeleton of the Carrion Crow.

Corvus corone—*Lin:* (La Corneille, of French authors.)

Habitat.—Europe.

Mus. Brookes.

1242. The skull of the Rook.

Corvus frugilegus—*Lin:* (Le Freux, of French authors.)

Habitat.—Europe.

Hunterian.

1243. The skull of the Hooded Crow.

Corvus cornix—*Lin:* (Le Corneille mantelée, of French authors.)

Habitat.—Europe.

Presented by Dr. Leach, 1824.

Section TENUIROSTRES.—(*Cuv* :)Genus CETHIA.—(*Lin* :)

1244. The skull of the common Creeper.

Cethia familiaris—*Lin* : (Le Grimp d'Europe, of French authors.)*Habitat*.—Europe.*Presented by Dr. Leach, 1824.*Genus TROCHILUS.—(*Lin* :)Sub-Genus ORTHORHYNCHUS.—(*Lacép.*)

1245. The skeleton of the least Humming-bird.

Trochilus minimus—*Lin* :

(Le plus petit des Oiseaux Mouches, of French authors.)

Habitat.—The West Indian Islands : particularly Jamaica.*Presented by the late Henry Cline, Sen., Esq., 1824.*Genus UPUPA.—(*Lin* :)

1246. The skull of the common Hoopoe.

Upupa epops—*Lin* : (La Huppe commune, of French authors.)*Habitat*.—Europe.*Presented by W. H. Clift, 1823.*

1247. The skull of the common Hoopoe.

Upupa epops.

*Hunterian.*Section SYNDACTYLES.—(*Cuv* :)Genus ALCEDO.—(*Lin* :)

1248. The skeleton of the common Kingsfisher.

Alcedo ispida—*Lin* : (Le Martin pêcheur, of French authors.)*Habitat*.—Europe.*Presented by Sir A. Carlisle, 1826.*

1249. The skull of a common Kingsfisher.

Alcedo ispida.

Presented by Dr. Leach, 1824.

Genus BUCEROS.—(*Lin* :)

1250. The mandibles and crest of the Rhinoceros Hornbill, in longitudinal section for structure.

Buceros Rhinoceros—*Lin* : (Calao Rhinoceros—*Levaill* : et *Buff* :)

Fig.—*Levaill* : *Calaos*, *pl.* 1, 2.

Habitat.—The East Indies.

Hunterian.

1251. The skull of a Rhinoceros Hornbill. (The crest imperfect.)

Buceros Rhinoceros.

Hunterian.

1252. The skull of a large Rhinoceros Hornbill. (The crest imperfect.)

Buceros Rhinoceros.

Mus. Brit.

1253. The mandibles and crest of a Rhinoceros Hornbill.

Buceros Rhinoceros.

Hunterian.

1254. The horny sheath of the upper mandible of a Rhinoceros Hornbill.

1255. The skull of the Helmet Hornbill. From Sumatra.

Buceros galeatus—*Lath* : (Calao à Casque rond.—*Levaill* :)

Fig.—*Buff* : *Ois. pl. enl.* 933.

Habitat.—The East Indian Islands.

Presented by the late Sir T. S. Raffles.

1256. The mandibles and crest of a Helmet Hornbill.

Buceros galeatus.

Mus. Lev.

1257. The skull of a Helmet Hornbill, in longitudinal section to show the structure of the crest.

Buceros galeatus.

Hunterian.

1258. The crest, anterior part of the skull, and mandible of a **Helmet Hornbill**, in longitudinal section for structure.

Buceros galeatus.

Hunterian.

1259. The horny sheath of the upper mandible of a **Helmet Hornbill**.

Presented by the late Sir Joseph Banks, Bart., 1813.

1260. A longitudinal section of the horny covering of the upper mandible of a **Helmet Hornbill**.

Hunterian.

1261. The skull of the **Bi-fronted Hornbill**.

Buceros bicornis—Lin: (Le Calao bicolore—Levaill:)

Fig.—Levaill: Calaos. pl. 7, 8.

Habitat.—The East Indian Islands.

Hunterian.

1262. The skull of a **Bi-fronted Hornbill**.

Buceros bicornis.

Mus. Brit.

1263. The skull and upper mandible of a **Bi-fronted Hornbill**, for structure. The crest removed.

Buceros bicornis.

Presented by Sir William Blizard, 1809.

1264. The skull of a **Bi-fronted Hornbill**, in longitudinal section for structure. The crest removed.

Buceros bicornis.

Hunterian.

1265. The mandibles and crest of the **Flat-crowned Hornbill**.

Buceros planiceps.? (Le Calao à Casque plat—Levaill.

Buceros Hydrocorax—Lin: Indian Hornbill—Lath:)

Fig.—Buff: Ois. pl. enl. 283. Levaill: Afr. v. pl. 240.

Habitat.—The Molucca Islands.

Much uncertainty has existed in identifying this species of **Hornbill**;

partly from its being by no means a common one (the head and mandibles alone having been described by Levaillant and others), and partly from the great variations observed in many individuals of other species of the same genus, which are only referable to the difference of age or sex. Levaillant believes this (the Flat-crowned Hornbill) to be of the Bontian or Indian species (*Corvus Indicus Bontii*—Ray. *Buceros Hydrocorax*—Lath:) in its most complete state; while at the same time, he considers the last named species, as no other than a young example of the Concave Hornbill (*Buceros cavatus*) in its first year's plumage. If such be really the case, the arrangement of the animals of this genus would be rendered more simple, and the confusion as Dr. Shaw justly observes, arising from an unnecessary multiplication of species be avoided.

Hunterian.

1266. The skeleton of the Pied Hornbill.

Buceros Malabaricus—Lath: (Le Calao à bec blanc—Levaill:

Buceros monoceros et *Buceros albirostris*—Shaw.)

Fig.—Levaill: *Ind. Ornith.* i. pl. 14. Lath: *Birds.* ii. pl. 33. Edw. pl. 281.

Habitat.—Java, and other East Indian Islands.

Mus. Brookes.

1267. The skull of the Pied Hornbill. From Java.

Buceros Malabaricus—Lath:

Hunterian.

1268. The skull of a young Pied Hornbill.

Buceros Malabaricus.

Mus. Lev. 1806.

1269. The skull of the Abyssinian Hornbill. Male.

Buceros Abyssinicus—Lath: (Calao d'Abyssinie—Buff:

Le Calao Caroncule—Levaill: Erkoom Abba Gumba—Bruce.)

Fig.—Buff: pl. enl. 779. Bruce, *Abyss. app.* pl. 10.

Habitat.—Abyssinia.

Presented by the late Henry Salt, Esq., 1811.

1270. The skull of the Abyssinian Hornbill. Female.

Buceros Abyssinicus.

Presented by the late Henry Salt, Esq., 1811.

1271. The skull of the Panayan Hornbill. ?

Buceros Panayensis—*Lath*: (Furrowed Hornbill—*Shaw*.

Le Calao à bec ciselé de Panay—*Sonn*: et *Levaill*:)

Fig.—*Sonn*: *Voy. pl.* 82, 83. *Levaill*: *Ois. Ind. pl.* 16, 17, 18.

Buff: *pl. enl.* 780, 781.

Habitat.—The Island of Panay, in the Phillipine Archipelago.

Congo Expedition, 1816.

1272. The skull of the Wreathed Hornbill.

Buceros plicatus—*Lath*: (Le Calao Javan, ou Calao annuaire—*Levaill*:)

Fig.—*Levaill*: *Afr. pl.* 239. *Will*: *pl.* 17, 78. *Damp*: *Voy. pl.* 3.

Habitat.—The Islands of Java, Ceylon, &c.

Mus. Brookes.

1273. The skull of the Angola or Stripe-tailed Hornbill. Female. ?

Buceros fasciatus—*Shaw*. (Le Calao longibande—*Levaill*:)

Fig.—*Levaill*: *Afr. pl.* 233.

Habitat.—Africa; Angola.

Congo Expedition, 1816.

1274. The skull of the Angola Hornbill. Male. ?

Buceros fasciatus.

Congo Expedition, 1816.

1275. The skull of a young African Hornbill. (*Species uncertain.*)

Buceros.

Congo Expedition, 1816.

1276. The skull of a Hornbill.

Buceros buccinator. ?

Habitat.—Africa.

Mus. Brookes.

ORDER SCANSORES.

Genus PICUS.—(*Lin* :)

1277. The skull of the great Black Woodpecker.

Picus martius—*Lin* : (*Picus niger*—*Briss* : Le Pic noir—*Buff* :)

Fig.—*Johnst* : *av. pl.* 41. *f.* 1. *Philos. Trans.* xxix. *pl.* 1. The head.

Buff : *pl. enl.* 596.

Habitat.—The Continent of Europe.

Hunterian.

1278. The skull of the Black Woodpecker. From the East Indies.

Picus martius.

Mus. Brit.

1279. The skull of the Green Woodpecker.

Picus viridis—*Gm* : *Lin* : (Le Pic verd—*Buff* :)

Fig.—*Lewin, Birds*, ii. *pl.* 51. *Buff* : *pl. enl.* 371, 879. *Donov: Birds*, *pl.* 37.

Habitat.—Most parts of the Continent of Europe.

Presented by W. Clift, 1823.

1280. The mandibles of the White-billed or large American Woodpecker.

Pica principalis—*Lin* : (*Picus niger Carolinensis*—*Briss* :

Le Pic noir hupéé de la Caroline—*Buff* :)

Fig.—*Am. Ornith.* *pl.* 29. Male. *Buff* : *pl. enl.* 690.

Habitat.—Carolina, Virginia, Brazil, and Mexico.

Presented by W. Bullock, Esq.

1281. The skull of the Buff-crested Woodpecker.

Picus melanoleucus—*Gm* : *Lin* :

(*Charpentier, à hupé couleur de paille*—*d'Azara*.)

Fig.—*Gen. Zool.* ix. *pl.* 31. *Lath : Birds*, iii. *pl.* 59.

Habitat.—Surinam.

Mus. Brit.

Genus CUCULUS.—(Lin:)

1282. The skull of a Cuckoo. From New Holland.

The Tippet Cuckoo of *Latham*. ?*Cuculus palliolatus*. ?*Habitat*.—New Holland, where it is said to be rare.*Presented by W. H. Clift, 1823.*

Genus RAMPHASTOS.—(Lin:)

1283. The skull of the Toco Toucan.

Ramphastos Toco—*Gm: Lin:* (Le Toco—*Buff:*)*Fig.*—*Shaw, Zool. viii. pl. 46.* *Levaill: pl. 7, 8.* *Buff: pl. enl. 82.**Habitat*.—Principally Cayenne.*Mus. Brit.*

1284. The skeleton of the Black-billed Toucan. ?

Ramphastos luteus—*Gm: Lin:* (Aracari à bec noir—*Buff:*)*Fig.*—*Buff: pl. enl. 166.* *Levaill: pl. 10, 11.* *Vieill: Gal. pl. 30.**Habitat*.—Mexico.*Purchased.*

Latham, in his *History of Birds*, ed. 1822. vol. ii. p. 280, when giving the generic characters of the Toucan, mentions but one smooth-billed species, as an exception to the others; all of which, he observes, have the edges of their mandibles more or less irregularly notched or serrated. *Ramphastos glaber* is the species cited, as differing in this particular from the rest; although in most other respects, resembling the female of the Green-winged Toucan, (*R. Viridis*.) The bird from which the above skeleton was made, was in a living state in the menagerie at Exeter 'Change, and appeared to be full grown. Except in the circumstances of the edges of the bill being perfectly smooth, (which, if observed, is omitted by Latham,) and in the general colour of the body, which was a dusky gray, the rest of the plumage and external characters strictly corresponded with his description of the black-billed species.

1285. The mandibles of the Yellow-breasted Toucan.

Ramphastos Tucanus—*Gm: Lin:* (Le Toucan à Collier Jaune—*Levaill:*)

Fig.—*Levaill: Ois. ii. pl. 4.*

Habitat.—South America, Brazil, Guiana, &c.

Mus. Brit.

1286. The skull of the Yellow-breasted Toucan.

Ramphastos Tucanus.

Mus. Brit.

1287. The skull of the Yellow-breasted Toucan. (The horny sheaths of the mandibles removed.)

Ramphastos Tucanus.

Mus. Brit.

1288. The skull of the Red-billed Toucan.

Ramphastos erythrorhynchus—*Gm: Lin:* (Le Toucan à gorge blanche—*Buff:*)

Fig.—*Levaill: Ois. ii. pl. 3.* *Buff: pl. enl. 262.* *Shaw, Zool. viii. pl. 47.*

Habitat.—South America, Cayenne, Guiana and Brazil.

Mus. Brit.

1289. The horny sheath of the upper mandible of a Red-billed Toucan.

Mus. Brit.

1290. The lower mandible of a Toucan. (*Species uncertain.*)Genus PSITTACUS.—(*Lin:*)

1291. The skull of the Blue and Yellow Maccaw.

Psittacus Ararauna—*Lin:* (L'Ara bleu—*Buff:*)

Fig.—*Levaill: Perr. pl. 3.* *Shaw, Zool. viii. pl. 54.*

Habitat.—Guiana, Brazil, and Surinam; also the Island of Jamaica.

Hunterian.

1292. The skull and upper mandible of the great Red and blue Maccaw. (Showing the moveable articulation between them.)

Psittacus Macao. (Ara Macao—*Levaill:*)

Fig.—*Levaill: Perr. i. pl. 1, 2, 3.* *Shaw, Zool. viii. pl. 53.*

Habitat.—Guiana, Brazil, and other parts of South America.

Hunterian.

1293. The skeleton of the Ash-coloured Parrot.

Psittacus erythacus—*Lin*: (Perroquet cendré ou Jaco—*Buff*:)

Fig.—*Buff*: *pl. enl.* 311. *Levaill*: *Perr.* *pl.* 99, 103. *Johnst*: *av. pl.* 15. *f.* 7.

Habitat.—Various parts of Africa.

Presented by W. H. Clift.

1294. A vertical section of the skull of a Parrot.

Hunterian.

ORDER GALLINÆ.—(*Lin*:)

Genus CRAX.—(*Lin*:)

1295. The skull of the Crested Curassow.

Crax Alector—*Lin*: (Indian Cock—*Pitf*: Hocco de la Guiane—*Buff*:)

Fig.—*Nat. Misc.* *pl.* 117. Male. *Lin*: *Trans.* *iv. pl.* x. *f.* 2, 3. Trachea.

Sloane's Jamaica. *pl.* 260. *Will*: *Orn. tab.* 28.

Habitat.—Guiana, and other parts of South America.

Presented by W. Bullock, Esq.

Genus PENELOPE.—(*Merrem*:)

1296. The sternum and trachea of the Marail Guan.

Penelope Marail--*Gm*: *Lin*: *Temm*: (Faisan Verdâtre de Cayenne--*Buff*:)

Fig.—*Buff*: *pl. enl.* 338. *Lin*: *Trans.* *iv. pl.* 9. *f.* 2. Trachea.

Bonat: *Tab. Encyc. Orn.* *pl.* 83. *f.* 4.

Habitat.—Guiana: also Rio de Janeiro.

Hunterian.

Genus NUMIDA.—(*Lin*:)

1297. The sternum and trachea of the Crested Pintado, or African Guinea-bird.

Numida cristata—*Lin*: (Peintade à Crête—*Sonmin*:)

Fig.—*Nat. Misc.* *pl.* 757. *Pallas, Spic.* *iv. tab.* 2.

Habitat.—Africa.

1298. The skeleton of the Guinea Pintado.

Numida Meleagris—*Lin*: (Gallus et Gallina Guineensis—*Ray*.

La Peintade—*Buff*:)

Fig.—Bewick's *Birds*. *pl.* p. 293. *Buff*: ii. *pl.* 4. *pl. enl.* 108.

Habitat.—Originally Africa.

Hunterian.

Genus PHASIANUS.—(*Lin*:)

1299. The skeleton of a large domestic Cock.

Phasianus gallus—*Lin*: (Gallus domesticus et Gallina—*Briss*:

Le Coq commun—*Buff*:)

Fig.—Will: *Orn. tab.* 26. Bewick's *Birds*. i. *pl.* p. 276. *Buff*: ii. *pl.* 2.

Habitat.—Most parts of the World.

1300. The skull of a variety of the common Fowl, having a spherical bony cyst above the orbits.

Phasianus gallus. (Gallina vertice tuberoso—*Pall*:)

Whether this peculiarity of the skull should properly constitute a variety, is uncertain; being, apparently, the result of disease alone; the latter opinion is supported by the authority of Pallas.

Hunterian.

1301. The left tarsus of a domestic Fowl, which was the subject of an experiment made by Mr. Hunter, to illustrate the growth of bone.

The length of the bone at the time of the experiment was 2 inches 7-8ths, and the extent of the space included between two small apertures made by cauterization near each of its extremities, was 1 inch 8-12ths; the growth of the bone was, subsequently, allowed to continue for a certain period, when the animal was killed. The length of the bone was then found to have increased to 3 inches 5-8ths, while the space between the apertures was 1 inch 11-12ths; the addition beyond the points of cauterization being more than double that of the increase of the space between them.

Hunterian.

1302. The right tarsus of an adult Fowl, in longitudinal section.

In this instance the bone, when young, was perforated near each extremity, and a small shot introduced into the openings: the length of the bone at that period was 2 inches 3-8ths, and the extent of space between the shots, 1 inch 5-8ths. The length in its present state is 3 inches 7-8ths, the distance between the shots, which are now in the medullary cavity, having undergone no visible increase.

Hunterian.

Genus TETRAO.—(Lin:)

1303. The skull of the American Ruffed Grouse.

Tetrao Umbellus—*Lin:* (Attagen Pennsylvaniae—*Briss:*

Coq de Bruyere à fraise—*Buff:*)

Fig.—*Philos. Trans.* xlviii. *pl.* 15. *Edw:* *Birds.* *pl.* 248.

Habitat.—Various parts of North America.

Hunterian.

Genus COLUMBA.—(Lin:)

1304. The skull of the Ring Pigeon.

Columba Palumbus—*Lin:* (Palumbus torquatus—*Ray.*

Pigeon Ramier—*Buff:*)

Fig.—*Lewin's Birds.* iv. *pl.* 129. *Bewick, i. pl. p.* 270. *Buff:* *pl. enl.* 316.

Habitat.—Most parts of Europe.

1305. The skeleton of the great Crowned Pigeon.

Columba coronata—*Lin:* (Phasianus cristatus Indicus—*Briss:*

Faisan couronné des Indes—*Buff:*)

Fig.—*Edw:* *Birds.* *pl.* 338. *Nat. Misc. pl.* 457. *Buff:* *pl. enl.* 118.

Habitat.—The Molucca Islands.

Mus. Brookes.

1306. The sternum of the great Crowned Pigeon.

Hunterian.

1307. The skeleton of the Blue-headed Pigeon.

Columba cyanocephalus—*Lin:* (Columbi-galline à cravate noir—*Temm:*

Tourterelle de la Jamaïque—*Buff:*)

Fig.—*Temm:* *Pig. fol. pl.* 3. *Buff:* *pl. enl.* 174.

Habitat.—Most parts of Europe.

Presented by W. H. Clift, 1827.

ORDER GRALLÆ.—(*Lin* :)Section BREVIPENNES—(*Cuv* :)

Genus STRUTHIO.

1308. The skeleton of an adult male Ostrich.

Struthio Camelus—*Lin* : (*L'Autruche*—*Buff* :)*Fig.*—Cheselden's *Osteog. cap.* 5. Skeleton. Wood's *Zoogr.* i. *pl.* 21.*Buff* : i. *pl.* 29. *pl. enl.* 457.*Habitat.*—Africa, and the adjacent parts of Asia.*Mus. Brit.*

1309. The skeleton of a young Ostrich.

Struthio Camelus.

Hunterian.

1310. The skeleton of a very young Ostrich. From the Cape of Good Hope.

Struthio Camelus.

Purchased 1828.

1311. The first cervical vertebra of an Ostrich.

Hunterian.

1312. Three cervical vertebræ of an Ostrich, articulated to show the structure of the joint.

Hunterian.

1313. The sternum of an Ostrich, with the sterno-costal bones attached on the left side.

Hunterian.

1314. The third sterno-costal bone of an Ostrich, right side.

Hunterian.

1315. The sixth sterno-costal bone of an Ostrich, right side.

Hunterian.

1316. The right scapula of an Ostrich.

Hunterian.

1317. The left humerus of an Ostrich, in longitudinal section.
Hunterian.
1318. The left ulna of an Ostrich.
Hunterian.
1319. The fourth and fifth dorsal vertebræ of an Ostrich, articulated to show the structure of the joint.
Hunterian.
1320. The sixth dorsal vertebra, with the left rib, articulated.
Hunterian.
1321. The seventh and eighth dorsal vertebræ of an Ostrich.
Hunterian.
1322. The first rib of an Ostrich, right side.
Hunterian.
1323. The second rib of an Ostrich, right side.
Hunterian.
1324. The fourth rib of an Ostrich, right side.
Hunterian.
1325. The fifth rib of an Ostrich, right side.
Hunterian.
1326. The seventh rib of an Ostrich, right side.
Hunterian.
1327. The ninth rib of an Ostrich, right side.
Hunterian.
1328. The ninth rib of an Ostrich, left side.
Hunterian.
1329. The right femur of an Ostrich, in longitudinal section, to show its internal cancellated structure.
Hunterian.
1330. The right femur of an Ostrich, in longitudinal section.
Hunterian.
1331. The right femur of a young Ostrich.
Hunterian.

1332. The head and neck of the left femur of a young Ostrich, in longitudinal section.

Hunterian.

1333. The inferior extremity of the left femur of a young Ostrich, in section.

Hunterian.

1334. The right tibia of an Ostrich, in longitudinal section.

Hunterian.

1335. The right tibia of a young Ostrich.

Hunterian.

1336. The left fibula of a young Ostrich.

Hunterian.

1337. The right tarsus of a young Ostrich.

Hunterian.

1338. The right tarsus of an Ostrich, in longitudinal section.

Hunterian.

Genus CASUARIUS.—(*Briss.*)

1339. The skeleton of a young New Holland Cassowary. (*The skull deficient.*)

Casuarius Novæ Hollandiæ—*Lath.*

Fig.—Phillips' *Bot. Bay. pl.* p. 271. White's *Journ. pl.* p. 129.

Nat. Misc. pl. 99.

Habitat.—New Holland.

Hunterian.

1340. The skull of an adult New Holland Cassowary.

Casuarius Novæ Hollandiæ.

Presented by Sir E. Home, Bart.

1341. The tarsus and phalanges of the extremity of an adult Emeu, or Galeated Cassowary.

Casuarius Emeu—*Lath.*: (*Struthio Casuarius*—*Lin.*: *Le Casoar*—*Buff.*)

Fig.—Will: *Orn. tab.* 136. Grew's *Mus. pl.* 27. Buff: *pl. enl.* 313.

Habitat.—The Banda and Molucca Islands, Java, Sumatra, &c.

Hunterian.

Section PRESSIROSTRES.

Genus OTIS.—(*Lin*:)

1342. The skull of the Great Bustard. Female.

Otis Tarda—*Lin*: (La grande Outard—*Buff*:)

Fig.—Will: *Orn. tab.* 32. *Buff*: *pl. enl.* 245.

Habitat.—Most parts of the Old Continent.

Hunterian.

Genus CHARADRIUS.—(*Lin*:)

1343. The skeleton of the Long-legged Plover.

Charadrius Himantopus—*Gm*: *Lin*: (L'Echasse—*Buff*:

Himantopus—*Briss*: Charadrius Autumnalis—*Hasselq*:

Ædicnemus longipes?—*Geoff*:)

Fig.—Bewick's *Birds*. ii. *pl.* p. 4. White's *Selb. pl.* p. 258.

Will: *Orn. tab.* 54. *Buff*: *pl. enl.* 878.

Habitat.—Various parts of the Old and New World. Rare in Great Britain.

Mus. Brookes.

Genus HÆMANTOPUS.—(*Lin*:)

1344. The Skull of the Black Oyster-catcher.

Hæmantopus niger—*Temm*: (Hæmantopus corpore toto nigro—*Forst*:)

Fig.— ?

Habitat.—New Holland, Van Dieman's Land, Terra del Fuego, New Zealand, and the Island of Curaçoa.

Hunterian.

1345. The skull of the Pied Oyster-catcher.

Hæmantopus ostralegus—*Lin*: (L'Huitrier—*Buff*:)

Fig.—Donov: *Birds*, iii. *pl.* 62. Lewin, v. *pl.* 188. *Brit Zool.* ii. *pl.* 74.

Buff: *pl. enl.* 929. Latham's *Birds*, ix. *pl.* clvi.

Habitat.—Most parts of the Old Continent; also found in North America, and is common in England.

Section CULTRIROSTRES.

Genus GRUS.—(*Cuv.*.)

1346. The skull of the Crowned Heron.

Ardea Pavonio—*Lin.*: (*Grus Balearica*—*Ray.*

Crowned African Crane—*Edw.*: *L'Oiseau Royal*—*Buff.*.)

Fig.—*Will.*: *Orn. tab.* 48. *Buff.*: *pl. enl.* 265. Male. *Edw.*: *Birds*, *pl.* 192.

Habitat.—Africa, particularly the Coast of Guinea.

Presented by Dr. Leach, 1824.

1347. The skull of the Crowned Heron.

Ardea Pavonia.

Presented by W. Bullock, Esq.

1348. The skull of the Common Crane.

Ardea Grus—*Lin.*: (*Grus cinerea*—*Temm.*: *Le Grue*—*Buff.*.)

Fig.—*Lewin's Birds*, *iv. pl.* 143. *Will.*: *Orn. tab.* 48. *Buff.*: *pl. enl.* 769.

Habitat.—Northern Europe, and Asia; (Sweden, Russia, Kamtschatka, Egypt, Aleppo, India, &c.)

Hunterian.

1349. The skull of the Demoiselle Crane.

Ardea Virgo—*Lin.*: (*La Grue de Numidie*—*Buff.*.)

Fig.—*Wood's Zoog.* *i. pl.* 22. *Edw.*: *Birds. pl.* 134. *Buff.*: *pl. enl.* 241.

Habitat.—Africa and Asia.

Presented by Dr. Leach, 1824.

1350. The skull of the Demoiselle Crane.

Ardea Virgo.

Presented by Dr. Leach, 1824.

1351. A longitudinal section of the skull of a Crane.

Ardea ?

Hunterian.

Genus CANCROMA.—(*Lin.*.)

1352. The Skull of the Cinereous Boat-bill.

Cancroma cochlearia—*Lin.*: (*Le Savacou*—*Buff.*.)

Fig.—*Nat. Misc. pl.* 713. *Buff.*: *pl. enl.* 38.

Habitat.—Various parts of South America.

Mus. Brit.

Genus ARDEA.—(*Cuv* :)

1353. The skeleton of the Common Heron.

Ardea cinerea et *Ardea major*—*Lin*: (*Ardea cristata*—*Briss* :

Le Héron huppé—*Buff* :)

Fig.—*Cheseld*: *Osteogr. introd.* Skeleton. *Lewin's Birds.* iv. *pl.* 118.

Buff: *pl. enl.* 755. *Will*: *Orn. tab.* 49.

Habitat.—Most parts of the globe, in their migratory state.

This specimen was brought from the Cape of Good Hope.

Purchased 1828.

1354. The skeleton of the Cyrus or Indian Crane.

Ardea antigone—*Lin*: (*Grus orientalis Indica*—*Briss* :)

Fig.—*Edw*: *Birds.* *pl.* 45. *Gerin*: iv. *pl.* 417. *Will*: *Orn. tab.* 48. Trachea.

Habitat.—Various parts of India.

The term *Cyrus*, by which this species of Crane is generally known, is a corruption of the Indian name applied to it, of *Sawrace*, and *Serass*.

This animal was in a living state in the menagerie at Exeter 'Change.

Purchased.

1355. The sternum and trachea of the Cyrus or Indian Crane.

In this specimen the peculiar course and extent of the trachea within the keel of the sternum are shown in a young animal; the four following specimens being of animals further advanced in age.

Presented by Sir E. Home, Bart., 1811.

1356. The sternum of the Indian Crane, showing the course of the trachea within it.

Hunterian.

1357. The sternum and trachea of the Indian Crane.

Presented by W. Clift, 1813.

1358. The sternum and trachea of the Indian Crane.

Presented by Sir E. Home, Bart., 1811.

1359. The sternum and trachea of the Indian Crane.

Presented by Sir E. Home, Bart., 1811.

1360. The skull of the great White Heron.

*Ardea alba—Lin: (Ardea alba major—Ray. Le Héron blanc—Buff:)**Fig.—Brit. Zool. ii. pl. 62. Will: Orn. tab. 49. Buff: pl. enl. 886.**Habitat.—Various parts of Europe, and North America.**Hunterian.*

1361. The skull of the Bittern.

*Ardea Stellaris—Lin: (Le Butor d'Europe—Cuv: &c.)**Fig.—Will: Orn. tab. 50, 52. Hayes's Birds. pl. 19. Buff: pl. enl. 789.**Habitat.—Common in England, and various parts of the Continent of Europe; found also in Asia and Africa.**Presented by W. Bullock, Esq.***Genus CICONIA.—(Cuv:)**

1362. The skull of the American Stork.

*Ardea Maguari—Gm: Lin: (Ciconia Americana—Briss:)**Habitat.—The warmer parts of North America, and particularly Brazil.**Hunterian.*

1363. The skeleton of the Adjutant, or Gigantic Crane.

*Ardea Argala—Lath: (Ardea dubia—Gm: Lin: Argill or Hurgill—Ives.)**Fig.—Gen. Synop. Supp. pl. 115. Lath: Birds. ix. pl. cxlvi.**Habitat.—India, particularly Bengal.**Presented by Dr. Henderson, 1822.*

1364. The skull of the Gigantic Crane.

*Ardea Argala.**Presented by Sir E. Home, Bart.*

1365. The right and left spurious metacarpal or wing-bones of the Gigantic Crane.

Hunterian.

Section LONGIROSTRES.

Genus SCOLOPAX. Sub-Genus IBIS.—(*Cuv* :)

1366. The mandibles of the Scarlet Ibis.

Scolopax rubra—*Lin* : (*Tantalus ruber*—*Gm* : *Avis Porphyrio*—*Seba*.
Le Courlis rouge—*Buff* :)

Fig.—*Am. Orn.* iii. *pl.* 66. *f.* 2. *Seba.* i. *tab.* 62. *f.* 3. *Buff* : *pl. enl.* 80, 81.

Habitat.—America, and the West Indian Islands, particularly the
 Bahamas.

Mus. Brit.

Sub-Genus SCOLOPAX.—(*Cuv* :)

1367. The skull of the Woodcock.

Scolopax rusticola—*Lin* : (*La Bécasse*—*Buff* :)

Fig.—*Will* : *Orn. tab.* 53. *Brit. Zool.* ii. *pl.* 65. *Buff* : *pl. enl.* 885.

Habitat.—The Continent of Europe, Asia and Africa.

Hunterian.

Sub-Genus CALIDRIS.—(*Cuv* :)

TRINGA.—*Temm* :

1368. The skull of the Ash-coloured Sandpiper.

Tringa cinerea et grisea—*Gm* : *Lin* : (*La Maubèche*—*Cuv* :)

Fig.—*Lewin.* v. *pl.* 171. *Will* : *Am. Orn.* vii. *pl.* 57. *f.* 2.

Habitat.—Many parts of Great Britain; also North America.

Mus. Brit.

Genus PALAMEDEA.—(*Lin* :)

1369. The bones of the wing of the American Horned Screamer.

Palamedea cornuta—*Lin* : (*Le Kamichi*—*Buff* :)

Fig.—*Will* : *Orn. tab.* 47. *Nat. Misc.* *pl.* 565. *Buff* : *pl. enl.* 451.

Habitat.—Various parts of South America; Cayenne, Guiana,
 Surinam, &c.

Mus. Brit.

Genus RALLUS.—(*Lin* :)

1370. The skull of the Water Rail.

Rallus aquaticus—*Lin* : (Le Râle d'Eau—*Buff* :)*Fig.*—Will : *Orn. tab.* 56. *Brit. Zool.* ii. *pl.* 75. *Buff* : *pl. enl.* 749.*Habitat.*—Europe.*Presented by W. Bullock, Esq.*

1371. The skull of the Black Rail.

Rallus Niger—*Gm* : *Lin* :*Habitat.*—The Cape of Good Hope.*Presented by W. Bullock, Esq.*Genus FULICA.—(*Lin* :)Sub-Genus FULICA.—(*Briss*)

1372. The skeleton of the Common Gallinule, or Coot.

Fulica Chloropus—*Lin* : (Fulica atra et æthiops—*Gm* :Gallinula Chloropus—*Lath* : &c. Poule d'Eau—*Buff* :)*Fig.*—Will : *Orn. tab.* 58. *Brit. Zool.* ii. *pl.* 77. *Buff* : *pl. enl.* 877.*Habitat.*—Most parts of England ; the Continent of Europe, South America, and also the Island of Java.*Mus. Brookes.*Genus PHÆNICOPTERUS.—(*Lin* :)

1373. The skeleton of the Red Flamingo.

Phœnicopterus ruber—*Lin* : (Le Flammant—*Buff* :)*Fig.*—Seba. *Mus. tab.* 67. *Am. Orn.* v. *pl.* 66. *f.* 4. Will : *Orn. tab.* 60.*Buff* : *pl. enl.* 63.*Habitat.*—The warmer parts of Europe, and almost all parts of Africa. This specimen was brought from the Cape of Good Hope.*Purchased 1828.*

1374. The skull of the Red Flamingo.

Phœnicopterus ruber.

Hunterian.

ORDER PALMIPEDES.—(*Cuv.*)

Section BRACHYPTERES.

Genus COLYMBUS.—(*Lin.*)

1375. The pelvis and leg of the Red-throated Diver, or Loon, showing the peculiar elongation of the head of the tibia.

Colymbus Septentrionalis—*Lin.*: (*Plongeon à gorge rouge*—*Buff.*;

Mergus gutture rubra—*Briss.* :)

Fig.—*Brit. Zool.* ii. *pl.* 85. *Edw. Birds.* *pl.* 97. *Buff.* *pl. enl.* 308.

Habitat.—The Northern parts of Europe, and North America.

Mus. Brookes.

Genus ALCA.—(*Lin.*)

Sub-Genus FRATERCULA.—(*Briss.* :)

1376. The skull of the Puffin Auk.

Alca arctica—*Lin.*: (*Anas arctica*—*Ray.* *Le Macareux*—*Buff.* :)

Fig.—*Will. Orn. tab.* 65. *Buff.* *pl. enl.* 275.

Habitat.—Various parts of the British Coast, and the adjacent Islands ; also North America, particularly in Carolina.

Presented by W. Bullock, Esq.

1377. The skull of a young Puffin Auk.

Alca arctica.

Hunterian.

Sub-Genus ALCA.

1378. The skull of the Razor-billed Auk.

Alca torda—*Lin.*: (*Pingouin macroptère*—*Temm.* :

Le Pingouin commun—*Cuv.* :)

Habitat.—The Arctic Asiatic shores, and some parts of the Mediterranean Sea.

Mus. Brit.

1379. The skull of a Razor-billed Auk.

*Alca torda.**Presented by W. Bullock, Esq.*

1380. The skull of the little Auk,

Alca alle—Lin : (*Uria alle—Temm :* Greenland Dove—*Albin :*)*Fig.—Will : Orn. tab. 59. Brit. Zool. ii. pl. 82. Bewick. ii. pl. p. 172.**Habitat.—The north of Europe, as far as Spitzbergen. Sometimes met with in England.**Presented by W. Bullock, Esq.*

1381. The skull of the Great Auk.

Alca impennis—Lin : (*Alca major—Briss :* Le grand Pingouin—*Buff :*)*Fig.—Will : Orn. tab. 65. Brit. Zool. ii. pl. 81. Buff : pl. enl. 367.**Habitat.—The coast of Norway, the Ferroe Isles, Greenland, Iceland, &c
Hunterian.*

1382. The skull of the Great Auk.

*Alca impennis.**Mus. Brit.*Genus APTENODYTES.—(*Forst :*)

1383. The skull of the Patagonian Penguin.

Aptenodytes Patachonica—Gm : Lin : (Grand Manchot—*Buff :*)*Fig.—Wood's Zoog. i. pl. 25. Nat. Misc. pl. 409. Buff : pl. enl. 975.**Habitat.—New Georgia, New Guinea, the Falkland Islands, &c.**Presented by Sir William Blizard.*

1384. The bones of the wing of a Patagonian Penguin.

Presented by Sir William Blizard.

1385. The bones of the wings of a Patagonian Penguin.

Hunterian,

1386. The bones of the feet of a Patagonian Penguin.

Hunterian.

1387. The skull of the Crested Penguin.

Aptenodytes chrysocome—*Gm: Lin:* (Manchot Sauteur—*Buff:*)

Fig.—*Nat. Misc. pl.* 437. *Buff: pl. enl.* 984.

Habitat.—Falkland Islands; Van Dieman's Land, and various parts of New Holland.

Presented by W. Bullock, Esq.

Section LONGIPENNES.

Genus PROCELLARIA.—(*Lin:*)

1388. The skull of the Giant Petrel.

Procellaria gigantea—*Gm: Lin:* (Osprey Petrel—*Forst:*)

Fig.—*Gen. Syn.* vi. *pl.* 100. *Lath: Birds.* x. *pl.* clxxvi.

Habitat.—Staaten Land, Terra del Fuego, the Island of Desolation, and others in the South Seas: also found off the coasts of Nootka Sound, and some other parts of North America.

Hunterian.

1389. The skull of the Fulmar or St. Kilda Petrel.

Procellaria glacialis—*Lin:* (*Procellaria cinerea*—*Briss:*)

Fulmar, ou Pétrel-Puffin gris blanc—*Buff:*)

Fig.—*Martin's St. Kilda.* iv. *pl.* 82. *Lewin's Birds.* vii. *pl.* 217.

Buff: Hist Nat. ix. *pl.* 59.

Habitat.—The Northern parts of Great Britain: the Island of St. Kilda, &c.

Hunterian.

1390. The skull of the Pintado or Cape Petrel.

Procellaria Capensis—*Lin:* (Le Pétrel tacheté—*Buff:*)

Fig.—*Damp: Voy.* iii. *pl.* p. 96. *f.* 1. *Edw: Birds,* *pl.* 90. *Buff: pl. enl.* 964.

Habitat.—The Cape of Good Hope, and adjacent parts.

Presented by W. Bullock, Esq.

Genus DIOMEDEA.—(*Lin:*)

1391. The skeleton of the Wandering Albatross. From the Cape of Good Hope.

Diomedea exulans—*Lin:* (Plautus Albatrus—*Klein:*)

Man of War Bird—*Grew.*)

Fig.—Edw: *Birds. pl.* 88. Grew's *Mus. tab.* 6. *f.* 1. Buff: *pl. enl.* 237.
Habitat.—About the Cape of Good Hope: also Kamtschatka, and the adjacent islands.

Purchased 1828.

1392. The skull of an Albatross.

Diomedea exulans.

Presented by W. Bullock, Esq.

1393. The skull of an Albatross.

Diomedea exulans.

Hunterian.

1394. The skull of an Albatross.

Diomedea exulans.

Presented by Dr. Leach, 1824.

1395. The skull of an Albatross. (*Imperfect.*)

Diomedea exulans.

Presented by Sir William Blizard. 1811.

1396. The right radius and ulna of an Albatross.

Hunterian.

1397. The left radius and ulna of an Albatross.

Hunterian.

Genus LARUS.—(*Lin:*)

1398. The skull of the Great Gull.

Larus ichthyæus—*Lath: Gm:* (*Mauve—Temm:*)

Fig.—*Gm: Reise. i. tab.* 30. 31.

Habitat.—Principally the borders of the Caspian Sea.

Presented by W. Bullock, Esq.

1399. The skull of the Black-backed Gull.

Larus marinus—*Lin:* (*Le Goëland à manteau noir—Cuv:*

Great Black and White Gull—Will:)

Fig.—*Will: Eng. pl.* 67. *Lewin's Birds. vi. pl.* 208. Buff: *pl. enl.* 990.

Habitat.—Various parts of England, but most numerous about Iceland.

Hunterian.

1400. The skull of the Black-backed Gull.

Larus marinus.

Hunterian.

1401. The skull of the Laughing or Black-headed Gull.

Larus atricilla—*Lin* : (Larus ridibunda—*Briss* :Larus minor capite nigro—*Klein*.)*Fig.*—Will: *Orn. tab.* 66, 67. Bewick's *Birds.* ii. *pl.* p. 228.*Habitat.*—Various parts of Russia and America; the Bahama Islands, and also in England.*Presented by Dr. Leach, 1824.*

1402. The skull of the Brown or Skua Gull.

Larus catarractes—*Lin* : (Le Goëland brun—*Buff*:Larus fuscus—*Briss*:)*Fig.*—Will: *Eng. pl.* 67. Lewin's *Birds.* vi. *pl.* 211. *Brit. Zool. fol. pl.* L. 6.*Hunterian.*

1403. The skull of the Common Gull.

Larus canus—*Lin* : (La grande Mouette cendrée—*Buff*:)*Fig.*—Will: *Orn. tab.* 76. *Brit. Zool.* ii. *pl.* 89. *f.* 2. *Buff*: *pl. enl.* 977.*Habitat.*—Most parts of Europe: also in some parts of Africa and America.*Hunterian.*Genus STERNA.—(*Lin*:)

1404. The skull of the Common Tern.

Sterna Hirundo—*Lin* : (La grande Hirondelle de Mer—*Buff*:Sea Swallow—*Will*:)*Fig.*—Will: *Orn. tab.* 68. *Brit. Zool.* ii. *pl.* 90. *Buff*: *pl. enl.* 987.*Habitat.*—The English Coasts: various parts of Northern Europe, and also in Asia.*Presented by W. Bullock, Esq.*Genus RHYNCHOPS.—(*Lin*:)

1405. The mandibles of the Black Skimmer.

Rhynchops nigra—*Lin* : (Plotos rostro conico inæquali—*Klein* :Le Bec en ciseau—*Buff*: Cutwater—*Catesb* :)

Fig.—Edw : *Birds. pl.* 281. Buff : *pl. enl.* 357. *Am. Orn.* vii. *pl.* 60. *f.* 4.

Habitat.—Various parts of America : New York to Guiana, Cayenne, and Surinam : also Paraguay, Buenos Ayres, and Brazil ; and in some parts of India.

Presented by W. Bullock, Esq.

Section TOTIPALMES.—(*Cuv :*)

Genus PELECANUS.—(*Lin :*)

Sub-Genus ONOCROTALUS.—(*Briss :*)

1406. The skull of the White Pelican.

Pelecanus onocrotalus—*Lin :*

Fig.—Will : *Orn. tab.* 63. Buff : *Hist. Nat.* viii. *pl.* 25. *pl. enl.* 87.

Edw : *Birds. pl.* 92.

Habitat.—Many of the warmer parts of the Continent of Europe, but principally the torrid zone.

Presented by Dr. Leach, 1824.

1407. The skull of a Large Pelican. From the Himalayan Mountains.

Pelecanus onocrotalus.

Presented by Lieut. Colonel Finch, 1830.

1408. The skull of a Pelican.

Pelecanus onocrotalus.

Hunterian.

1409. The skull of a Pelican.

Pelecanus onocrotalus.

Hunterian.

1410. The skull of a Pelican.

Pelecanus onocrotalus.

Hunterian.

1411. The skull of a Pelican.

Pelecanus onocrotalus.

Hunterian.

1412. The right clavicle of a Pelican. *Hunterian.*
1413. The left clavicle of a Pelican, in longitudinal section. *Hunterian.*
1414. The right humerus of a Pelican, in longitudinal section. *Hunterian.*
1415. The left humerus of a Pelican. *Hunterian.*
1416. The right ulna of a Pelican, in longitudinal section. *Hunterian.*
1417. The left ulna and radius of a Pelican. *Hunterian.*
1418. The right metacarpal bone of a Pelican, in longitudinal section. *Hunterian.*
1419. The left metacarpal bones of a Pelican. *Hunterian.*
1420. The bones of the legs of a Pelican. *Hunterian.*
1421. The lower mandible of a Pelican, one half of which is in longitudinal section to show its structure. *Hunterian.*

Sub-Genus PHALACROCORAX.—(*Briss* :)

1422. The skull of the Common Corvorant.

Pelecanus carbo—*Lin* : (*Corvus aquaticus*—*Ray*. Le Cormoran—*Buff* :)
Fig.—*Will* : *Orn. tab.* 63. *Bewick's Birds*. ii. *pl.* 381. *Brit. Zool. fol. pl.* i.
Buff : *pl. enl.* 927.

Habitat.—Many parts of England : found in Russia, India, China : also some parts of North America, and at the Cape of Good Hope.

Hunterian.

1423. The skull of a Corvorant.

Pelecanus carbo.

Mus. Brookes.

1424. The skull of the Lesser Corvorant, or Shag.

Pelecanus graculus—*Lin*: (Corvus aquaticus minor—*Ray*.Le petit Cormoran ou Nigaud—*Buff*:)*Fig*.—Bewick's *Birds*. ii. *pl.* p. 290. *Will*: *Eng. pl.* 63. *Brit. Zool.* ii. *pl.* 102.*Habitat*.—Similar to the Corvorant.*Hunterian.*

Sub-Genus SULA.

1425. The skull of the Gannet, or Soland Goose.

Pelecanus Bassanus—*Lin*: (Sula bassana—*Briss*: Fou de bassan *Buff*:)*Fig*.—*Will*: *Orn. tab.* 63. *Brit. Zool.* ii. *pl.* 103. *Buff*: *pl. enl.* 278.*Habitat*.—The Northern parts of Europe and America.*Presented by Sir E. Home, Bart.*

1426. The skull of a Soland Goose.

Pelecanus Bassanus.

Hunterian.

Section LAMELLIROSTRES.

Genus ANAS.—(*Lin*:)Sub-Genus CYGNUS.—(*Meyer*.)

1427. The skeleton of the Wild or Whistling Swan.

Cygnus ferus—*Briss*: Anas cygnus—*Lin*: Cygne Sauvage—*Buff*:)*Fig*.—*Will*: *Orn. tab.* 69. Head. *Edw*: *Birds. pl.* 150.*Lin. Trans.* iv. *pl.* xii. *f.* 1. 2.*Habitat*.—The Northern parts of the Old and New World.*Presented to Mr. Brookes by — Lightfoot, Esq.**Mus. Brookes.*

1428. The skull of the Wild Swan.

Cygnus ferus.

Hunterian.

1429. The skull of a Wild Swan, in longitudinal section.

Cygnus ferus.

Hunterian.

1430. The sternum of a Wild Swan. Male.

Prepared by Mr. André.

In this and the following specimens, the peculiar course of the trachea within the carina of the sternum is shown. To the great length of the windpipe in this species, is to be attributed the remarkably loud and harsh voice the animal possesses, from whence the name *Hooper*, or *Whistling Swan*, has been derived; and is applied in contradistinction to the domestic or *Mute Swan*, in which, as in most other birds, the trachea proceeds at once to the lungs, without entering the sternum.

In the female of the wild species, the course of the trachea is much more limited than in the male, seldom penetrating the sternum to a greater extent than from three to four inches.

Purchased 1812.

1431. The sternum of a Wild Swan. Male.

Mus. Brookes.

1432. The sternum of a Wild Swan.

Hunterian.

1433. The sternum and bones of the trunk of a Wild Swan.

Hunterian.

1434. The sternum of a Wild Swan.

Hunterian.

1435. The sternum of a Wild Swan.

Presented by Sir E. Home, Bart., 1813.

1436. The sternum of Bewick's Wild Swan.

Cygnus Bewickii.

The bird to which this specimen appertains had hitherto been confounded with the ordinary Hooper, or Whistling Swan. Mr. Yarrel,

has, however, pointed out the difference existing between them, in a paper on that subject in the Linnæan transactions, accompanied by figures representing the state of the trachea in birds of his newly described species at different ages; in which the horizontal situation of the trachea within the flat part of the sternum, in addition to the vertical course it takes in the interior of the carina, is shown.

Vide Lin. Trans. Vol. xvi. Part 2. p. 445. *pl.* 24, 25.

Presented by Dr. Leach, 1824.

1437. The skull of the Common or Mute Swan.

Anas olor—*Gm*: (Le Cygne—*Buff*:)

Fig.—*Will: Orn. tab.* 69. *Brit. Zool.* ii. *pl.* 60. *Bewick. pl.* p. 277.

Buff: pl. enl. 913.

Habitat.—In their wild state, in Russia and Siberia: by domestication, common in England, &c.

Hunterian.

1438. The skull of the Common Swan.

Anas olor.

Hunterian.

1439. The skull of the Common Swan.

Anas olor.

Hunterian.

1440. The skeleton of the Black Swan.

Anas atrata—*Lath*: (*Anas plutonia*—*Shaw*.)

Fig.—*Nat. Misc. pl.* 108. *D'Entrecast: Voy.* i. *pl.* 9.

Habitat.—New Holland.

The animal was in a living state in the menagerie at Exeter 'Change.

Purchased 1824.

1441. The sternum of the Black Swan.

Presented by Sir E. Home, Bart., 1813.

Sub-Genus ANSER.—(*Briss* :)

1442. The skeleton of the Egyptian or Cape Goose.

Anser Ægyptiaca—*Lin*: (L'Oie d'Egypte—*Buff* :)

Fig.—*Will*: *Orn. tab.* 71. *f.* 1. ? *Bewick*, ii. *pl.* p. 287. *Buff*: *pl. enl.* 379.

Habitat.—Egypt, the Cape of Good Hope, and other parts of Africa.

Mus. Brookes.

Sub-Genus ANAS.—(*Meyer*.)

1443. The skull of the Eider Duck. Female.

Anas mollissima—*Lin*: (Great Black and White Duck—*Edw* :

L'Oie à Duvet, Eider—*Buff*: *Anas* S. Cuthberti—*Will* :)

Fig.—*Will*: *Orn. tab.* 76. *Bewick*, ii. *pl.* p. 214. *Buff*: *pl. enl.* 208.

Habitat.—The Northern regions of Europe: also in the United States of America.

Hunterian.

1444. The skull of the Velvet Duck.

Anas fusca—*Lin*: (*Anas nigra major*—*Briss* :

Grande ou double Macreuse—*Buff* :)

Fig.—*Will*: *Orn. tab.* 70. *Bewick*, ii. *pl.* p. 322. *Buff*: *pl. enl.* 956. Male.

Presented by Dr. Leach, 1824.

1445. The skull of the Tufted Duck.

Anas fuligula—*Lin*: (*Anas cristata*—*Ray*. Morillon—*Buff* :)

Fig.—*Will*: *Orn. tab.* 73. *Bewick*, ii. *pl.* p. 372. *Buff*: *pl. enl.* 1001.

Habitat.—Several parts of England during the winter; the Continent of Europe, and also in Russia.

Presented by Dr. Leach, 1824.

1446. The skull of the Shoveller Duck.

Anas clypeata—*Lin*: (*Anas platyrhynchos*—*Ray*. Souchet—*Buff* :)

Fig.—*Will*: *Orn. tab.* 74. *Bewick*, ii. *pl.* p. 345. *Buff*: *pl. enl.* 971, 972.

Habitat.—The Continent of Europe: also in North America and some parts of India: rare in England.

Presented by W. Bullock, Esq.

1447. The skull of the Mallard or Wild Duck.

Anas Boschas—*Lin*: (*Boschas major*—*Ray*. Canard Sauvage—*Buff*:)
Fig.—*Will*: *Orn. tab.* 72. *Bewick*, ii. *pl.* p. 327. *Buff*: *pl. enl.* 776, 777.
Habitat.—In its varieties, widely spread throughout the Continent of Europe: found in India and China: common in England, particularly Lincolnshire.

Presented by Dr. Leach, 1824.

1448. The skull of the Gargany Duck.

Anas Querquedula—*Lin*: (*Sarcelle*—*Buff*:)
Fig.—*Will*: *Orn. tab.* 74. *Bewick*, ii. *pl.* p. 374. *Buff*: *pl. enl.* 946. Male.
Habitat.—Common in England during the winter, but migrating on the Continent, northwards to Russia and Siberia, and southwards to Italy and Spain, and from thence to India.

Presented by W. Bullock, Esq.

1449. The skull of a Duck, from New Holland.

Anas Carpentaria.?

Presented by W. Bullock, Esq.

Genus *MERGUS*.—(*Lin*:)

1450. The skull of the Goosander Merganser.

Mergus merganser—*Lin*: (*Serrator*—*Klein*: *Le Harle*—*Buff*:)
Fig.—*Will*: *Orn. tab.* 64. *Bewick*, ii. *pl.* p. 254. *Buff*: *pl. enl.* 951.
Habitat.—The Orkneys and Hebrides; and the Northern parts of Europe, Asia, and America.

1451. The skull of the Smew.

Mergus albellus—*Lin*: (*Mergus major cirrhatus*—*Ray*.
Le petit Harle huppé—*Buff*:)
Fig.—*Will*: *Orn. tab.* 64. *Bewick*, ii. *pl.* p. 264. *Buff*: *pl. enl.* 449.
Habitat.—Various parts of England during the winter: migratory in the Northern parts of Europe and America.

Presented by Dr. Leach, 1824.

CLASS REPTILIA.

Order CHELONIA.

Genus TESTUDO.—(*Lin* :)

LAND TORTOISES.

1452. The dorsal part of the shell, or carapace, of the European, or Greek Land Tortoise.

Testudo græca—*Lin* :

Fig.—Schoepff, *Test. tab.* viii. ix. Bojanus, *Anat. Testud. Europ.*

Habitat.—Most parts of Europe ; Greece, Italy, Sardinia, &c.

Mus. Brit.

1453. The carapace of an European Land Tortoise.

Testudo græca.

Mus. Brit.

1454. The carapace of an European Land Tortoise.

Testudo græca.

Mus. Lev.

1455. The shell of a very large Indian Tortoise.

Testudo Indica—*Lin* : *Perrault*.

Fig.—Schœpff, *Test. tab.* xii.

The animal was a native of the Seychalla Islands, and was being sent as a present to General De Caen, governor of the Isle of France, in the French Corvette *Gobe Mouche*, which was captured by Captain Corbet, of the *Nercide*, and the animal brought to the Cape of Good Hope. It was sent to England by Admiral Bertie, who commanded at the Cape, and remained in a living state at Petworth, the seat of the Earl of Egremont, from August, 1809, until April, 1810. Its weight was 207 lbs. Length of the shell 4 feet, diameter 3 feet, height 1 foot 6 inches ;—the first two measurements including the convexity of the shell.

From the Earl of Egremont, by the hands of

Sir E. Home, Bart., 1810.

1456. Shell of an Indian Tortoise.

Testudo Indica.

Presented by the late Sir J. Banks, Bart.

1457. Shell of an Indian Tortoise.

Testudo Indica.

Presented by the late Sir J. Banks, Bart., 1810.

1458. Shell of an Indian Tortoise.

Testudo Indica.

Presented by Mrs. Robinson, 1812.

1459. Incipient shell of a foetal Indian Tortoise.

Testudo Indica.

Mus. Brit.

1460. The left os humeri of a large Indian Tortoise, in longitudinal section.

Hunterian.

1461. Shell of the Radiated Tortoise.

Testudo radiata—*Shaw*. (Testudo tessellata major—*Grew*.)*Fig.*—*Shaw*, *Zool.* iii. *pl.* ii. Daud : ii. *pl.* xxvi.*Habitat.*—Madagascar; Jamaica. ?

1462. Shell of a Radiated Tortoise.

Testudo radiata.

Hunterian.

1463. Shell of a Radiated Tortoise.

Testudo radiata.

Mus. Lev.

1464. The abdominal part of the shell, or plastron, of a Radiated Tortoise.

Mus Lev.

1465. The plastron of a Radiated Tortoise.

Mus. Lev.

1466. Shell of the Hercules Tortoise.

Testudo Hercules—*Spix*.*Fig.*—*Spix*, *tab.* xiv.*Habitat.*—Brazil.*Mus. Brit.*

1467. Shell of the Geometrical Tortoise.

Testudo geometrica—*Lin*: (Testudo tessellata minor—*Ray*.)

Fig.—Schœpff, *Test. tab.* x.

Habitat.—Asia, Africa, and America. ?

Mus. Lev.

1468. Shell of a Geometrical Tortoise. (*Scutella deficient.*)

Testudo geometrica.

Mus. Brit.

1469. Shell of a Geometrical Tortoise.

Testudo geometrica.

Mus. Lev.

1470. Shell of a Geometrical Tortoise.

Testudo geometrica.

Mus. Lev.

1471. Shell of a Geometrical Tortoise.

Testudo geometrica.

Mus. Lev.

1472. Shell of a Geometrical Tortoise.

Testudo geometrica.

Mus. Lev.

1473. Shell of a Geometrical Tortoise.

Testudo geometrica.

Mus. Lev.

1474. Shell of a variety of the Geometrical Tortoise.

Testudo tentoria—*Bell. Zool. Journ.* iii. p. 420.

Habitat.—Africa. ?

Mus. Lev.

1475. Shell of the Tabulated Tortoise. (*Scutella deficient.*)

Testudo tabulata.

Fig.—Schœpff, *Test. tab.* xii. f. ii. t. xiii. f. i. ii. Shaw, *Zool.* iii. pl. 8.

Habitat.—Africa, South America. ?

Mus. Brit.

1476. Shell of a Tabulated Tortoise.

Testudo tabulata.

Mus. Brit.

1477. Shell of a Tabulated Tortoise.

Testudo tabulata.

*Mus. Brit.*1478. Shell of a Stellated Tortoise. (*Scutella deficient.*)

Testudo stellata.

*Mus. Brit.*1479. Shell of a Stellated Tortoise. (*Scutella deficient.*)

Testudo stellata.

Mus. Brit.

1480. Shell of the Areolated Tortoise.

Testudo areolata—*Thunberg*.*Fig.*—Schœpff, *Test. tab.* xxiii.*Habitat.*—The East Indies ; and, according to Seba, South America.*Mus. Lev.*

1481. Shell of the Denticulated Tortoise.

Testudo denticulata—*Lin* :*Fig.*—Shaw, *Zool.* iii. *pl.* xiii. from this specimen.Schœpff, *Test. tab.* xxviii. *fig.* 1.*Habitat.*—North America.*Mus. Lev.*

1482. Shell of a Denticulated Tortoise.

Testudo denticulata.

Mus. Lev.

1483. Shell of Schweiger's Tortoise.

Testudo Schweigeri—*Gray. Synop. Reptil.* Part 1.*Mus. Lev.*

Genus EMYS.

FRESH WATER TORTOISES.

1484. The shell, skull, clavicles, scapulæ, and pelvis, of a small Fresh-water Tortoise.

Emys.

Hunterian.

1485. Shell of the Painted Tortoise.

Emys picta. (Testudo picta—*Lin* :)

Fig.—Shaw, *Zool.* iii. *pl.* x. Schœpff, *Test. tab.* iv.

Habitat.—The deep rivers of North America.

Mus. Lev.

1486. Shell of the Painted Tortoise.

Emys picta.

Mus. Brit.

1487. Shell of the Painted Tortoise.

Emys picta.

Mus. Lev.

1488. Shell of the Painted Tortoise.

Emys picta.

Mus. Brit.

1489. Shell of the Painted Tortoise.

Emys picta.

Mus. Brit.

1490. Shell of the Painted Tortoise.

Emys picta.

Mus. Brit.

1491. Shell of the Painted Tortoise.

Emys picta.

Mus. Brit.

Genus CISTUDA.—(*Fleming.*)

1492. Shell of the Leverian Box Terrapin.

Cistuda Amboinensis. *Var.* *Leveriana.*

Habitat.—Amboyna. ?

Mus. Lev.

1493. Shell of the American Box Terrapin.

Cistuda clausa. (Testudo Carolina, et clausa—*Lin* :)

Fig.—Schœpff, *Test. tab.* vii. Grew, *tab.* iii. *f.* 2.

Habitat.—North America.

Mus. Brit.

1494. Shell of a Box Terrapin.

Cistuda clausa.

Mus. Brit.

1495. Shell of a Box Terrapin.

Cistuda clausa.

Mus. Brit.

1496. Shell of a Box Terrapin.

Cistuda clausa.

1497. Shell of a Box Terrapin. (*Scutella deficient.*)

Cistuda clausa.

Mus. Brit.

1498. Shell of a Box Terrapin.

Cistuda clausa.

Mus. Lev.

1499. Shell of a young Box Terrapin.

Cistuda clausa. (Terrapene nebulosa.? Bell, *Zool. Journ.* ii.)*Mus. Brit.*

1500. Shell of a young Box Terrapin.

Cistuda clausa.

Mus. Lev.

1501. Shell of a young Box Terrapin.

Cistuda clausa.

Mus. Brit.

1502. Shell of the Three-keeled Kinosternon, or Pennsylvanian Box Terrapin.

Kinosternon longicaudatum—*Spix.* (Kinosternon Shavianum—*Bell.*T. scorpioides—*Lacép.* T. tricarinata?—*Schæpff. et Daud.*T. var. Pennsylvanica—*Shaw.*)*Fig.*—Shaw, *Zool.* iii. pl. xv. from this specimen. Schæpff, *Test. tab.* ii.?*Habitat.*—North America.?

In "A Monograph of the Tortoises having a moveable Sternum," by Mr. Thomas Bell, in the second volume of the *Zool. Journal*, p. 302, amongst the species of the Genus Kinosternon (*Spix*) this is described as follows:—

“ *Species I. Shavianum*.—K. Testâ elongato-ovatâ, tricarinatâ; scutis
 “ omnibus imbricatis, marginalibus 23; sterno posticè bifido.
 “ Testudo Pennsylvanica var. Shaw, *Gen. Zool.* iii. part 1. p. 61. pl. 15.
 “ *Habitat*.—?”

“ Of this elegant species I have seen but a single specimen, now in my
 “ collection, which, as I obtained it from a dealer who had long possessed
 “ it, may, not improbably, be the identical one figured by Shaw, and
 “ stated by him to have been in the Leverian Museum.—————”

“ The general colour of the upper shell is a very deep blackish brown;
 “ the *sternum* and under part of the margin yellowish.”

“ As the brief account given by Dr. Shaw of this interesting species is
 “ extremely vague and unsatisfactory, I have thought it necessary to enter
 “ into a more detailed description of it; and have named it in honour to
 “ that naturalist. It is remarkable that he should for one moment have
 “ considered it as a variety of *Testudo Pennsylvanica* (*Gmel.*) to which it
 “ bears scarcely the least general resemblance, and from which it differs
 “ in so many essential characters. Of the animal itself unfortunately
 “ nothing is known.”

The *original specimen* however, alluded to by Mr. Bell, and figured by
 Dr. Shaw, was purchased by the College at the sale of the Leverian
 Museum, in the year 1806.

Mus. Lev.

1503. Shell of the Speckled Tortoise. (*Polished.*)

Cistuda Europæa. (*Testudo orbicularis*—*Lin.*: Le Jaune—*Lacép.*:
Testudo meleagris—*Shaw.*)

Fig.—Shaw, *Zool.* iii. pl. v. Schœpff, *Test. tab.* 1.

Habitat.—Most parts of Europe:—Italy, France, Prussia, Sardinia,
 Hungary, &c.

Mus. Lev.

1504. Shell of the Speckled Tortoise.

Cistuda Europæa.

Mus. Brit.

1505. Shell of a Speckled Tortoise.

Cistuda Europæa.

Mus. Brit

1506. Shell of a Speckled Tortoise.

Cistuda Europæa.

Hunterian.

1507. Shell of the Concentric Terrapin.

(A variety, having the concentric zones duplex.)

Emys concentrica.

Fig.—Shaw, *Zool.* iii. *pl.* ix. from this specimen. Schœpff, *Test. tab.* xv.*Habitat.*—North America: also the Island of Jamaica.*Mus. Lev.*

1508. Shell of a Concentric Terrapin.

Emys concentrica.

Mus. Lev.

1509. Shell of a Concentric Terrapin.

Emys concentrica.

Mus. Lev.

1510. Shell of a Concentric Terrapin.

Emys concentrica.

Mus. Brit.

1511. Shell of a young Concentric Terrapin.

Emys concentrica.

Mus. Brit.

1512. Shell of the Lettered Terrapin.

Emys Scripta. (Testudo Scabra—*Thunb.* :)*Fig.*—Schœpff, *Test. tab.* iii. *fig.* iv. v. ? Daud: *tab.* 21. *f.* 1.*Habitat.*— ?*Mus Lev.*

1513. Shell of a Lettered Tortoise.

Emys Scripta.

Mus. Lev.

1514. Shell of a young Lettered Tortoise.

Emys Scripta.

Mus. Lev.

1515. Shell of the common Terrapin, or Mud Tortoise.

Emys lutaria. (*Testudo lutaria*—*Lin* :)*Fig.*—Shaw, *Zool.* iii. *pl.* vi. *f.* i. iii.*Habitat.*—Most parts of Europe ; and also in Asia.*Mus. Brit.*

1516. Shell of a Mud Tortoise.

*Emys lutaria.**Mus. Brit.*

1517. Shell of the Furrowed Terrapin.

Emys decussata—*Bell.**Mus. Brit.*

1518. Shell of a Furrowed Terrapin.

*Emys decussata.**Mus. Lev.*

1519. Shell of the Spengler Terrapin.

Emys Spengleri. (*Testudo Spengleri*—*Lin* : *T. Serrata*—*Shaw.*)*Fig.*—Shaw, *Zool.* iii. *pl.* ix. *f.* 2. from this specimen : and which is there described as a new species.*Habitat.*— ?*Mus. Lev.*

1520. Shell of the Spengler Terrapin.

*Emys Spengleri.**Hunterian.*

1521. Shell of the Serrated Terrapin.

Emys serrata. ? *Gray, Synop. Reptil.**Mus. Brit.*

1522. Shell of the Spotted Terrapin.

Emys punctata. (*T. punctata*—*Schæpff.* *T. guttata*—*Shaw.*)*Fig.*—*Schæpff, Test. tab.* v.*Habitat.*—The rivers and lakes of North America.*Mus. Brit.*

1523. Shell of a Spotted Terrapin.

*Emys punctata.**Mus. Lev.*

1524. Shell of the Wrinkled Terrapin.

Emys rugosa. (*Testudo rugosa*—*Shaw.*)*Fig.*—*Shaw, Zool. iii. pl. iv.* from this specimen.*Habitat.*— ?*Mus. Lev.*

1525. Shell of the Specious Terrapin.

Emys speciosa—*Gray. Synop. Reptil.**Habitat.*—South America. ?*Mus. Brit.*Genus CHELYS.—(*Duméril.*)

1526. Skeleton and shell of the Brazilian Matamata, or Fimbriated Tortoise.

Chelys fimbriata.—*Schn :* (*Testudo fimbria*—*Lin :*)*Fig.*—*Schœpff, Test. tab. xxi. Cuv : Oss. Foss. v. pl. xi. f. 21, 24. Cranium.**Habitat.*—Guiana.

This very singular species of tortoise was first described by M. Bruguiere in the *Journ. d'Histoire Naturelle*. No. 2. p. 253. *pl. 13.* Paris. 1792.

Presented by Sir E. Home, Bart., 1826.

1527. Skull of the expanded Hydraspis, taken in the River Amazon, about 2000 miles from the mouth.

*Emys expansa.**Fig.*—*Cuv : Oss. Foss. v. pl. xi. f. 9, 12. Cranium. Spix. tab. ii. f. 1, 2, 3.*

Cuvier considers this species as a link connecting the fresh-water with the marine tortoises.

Presented by Lieut. Mawe, R.N., 1829.

1528. Skull of a Fresh-water Tortoise. (Species uncertain.)

*Emys.**Hunterian*

CHELONIA.—(*Brongn.* :)

MARINE TORTOISES.

1529. Skeleton and shell of a small Loggerhead Turtle. (*Scutella* 15, *marginal plates* 27.)

Testudo caretta—*Lin.* : (La Caouane of French authors.)

Fig.—Schœpff, *Test. tab.* xvi. Shaw, *Zool.* iii. *pl.* xi. and xxiii.

Cuv. : *Oss. Foss.* v. 2. *pl.* xi. *f.* 1, 4.

Habitat.—The West Indian Seas : also in the Mediterranean ; and on the coasts of Italy and Sicily.

Presented in a living state by the late William Norris, Esq., 1814.

1530. Bones of the plastron of a Loggerhead Turtle.

Hunterian.

1531. Skull of a gigantic Loggerhead Turtle.

Testudo caretta.

From a memorandum originally attached to this specimen, the animal to which it belonged weighed upwards of 1600 pounds.

Its dimensions are, (allowing for the occipital process, which has been broken away) length, 16 inches ; width, 11 inches ; height, $8\frac{3}{4}$ inches.

Mus. Lev.

1532. Skull of a Loggerhead Turtle.

Testudo caretta.

Hunterian.

1533. Lower jaw of a Loggerhead Turtle.

Purchased.

1534. Shell of the Imbricated or Hawk's-bill Turtle.

Testudo imbricata—*Lin.* :

Fig.—Schœpff, *Test. tab.* xviii.

Habitat.—The Asiatic and American Seas : also the Mediterranean.

Mus. Brit.

1535. Shell of the Imbricated or Hawk's-bill Turtle.

Testudo imbricata.

Mus. Lev.

1536. Skull of the Hawk's-bill Turtle.

Testudo imbricata.

Hunterian.

1537. Skull of a Hawk's-bill Turtle, in longitudinal section.

Testudo imbricata.

Hunterian.

1538. Lower jaw of a large Hawk's-bill Turtle.

Hunterian.

1539. Shell of a variety of the Green Turtle.

Testudo virgata—*Cuv*:*Fig.*—Bruce, *Abyss. pl.* xlii. Guerin, *Icon. Reptil. tab.* 1. *f.* 4.*Habitat.*— ?*Hunterian.*

1540. Skeleton and shells of a variety of the Green Turtle.

Testudo virgata.

Hunterian.

1541. Skull of the common Green or Esculent Turtle.

Testudo Mydas—*Lin*: (Testudo viridis—*Schneider*.)*Fig.*—Shaw, *Zool.* iii. *pl.* xxii.*Cuv*: *Oss. Foss.* v. *pl.* xi. *f.* 1, 2, 3, 4. Cranium.*Habitat.*—The West Indian Seas.*Mus. Brit.*

1542. Skull of the Green Turtle.

Testudo Mydas.

Mus. Brit.

1543. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1544. Skull of a Green Turtle, which weighed 4 cwt.

Testudo Mydas.

Presented by Mr. Cuff, 1830.

1545. Skull of a Green Turtle, which weighed 360 lbs.

Testudo Mydas.

Presented by Mr. Cuff, 1825.

1546. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1547. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1548. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1549. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1550. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1551. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1552. Skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1553. Skull of a Green Turtle.

Testudo Mydas.

Presented by the late H. Cline, Sen., Esq., 1824.

1554. Longitudinal section of the skull of a Green Turtle.

Testudo Mydas.

Hunterian.

1555. The pelvis of a large Green Turtle, which weighed 4 cwt.

Presented by Mr. Cuff, 1830.

1556. The pelvis of a large Green Turtle. *Presented by Mr. Cuff, 1820.*
1557. The pelvis of a Green Turtle. *Presented by Mr. Cuff, 1820.*
1558. The bones of the anterior extremity of a Green Turtle. *Hunterian.*
1559. The bones of the posterior extremity of a Green Turtle. *Hunterian.*
1560. The bones of the anterior extremity of a young Green Turtle. *Hunterian.*

ORDER SAURIA.

Genus CROCODILUS.—(*Brongn.*)

1561. Skull of the great Gavial of the Ganges. Adult.
Crocodilus longirostris—*Schn.*: (*Lacerta gangetica*—*Gmel.*)
Fig.—*Cuv.*: *Oss. Foss.* V. 2. *pl.* i. *f.* 2, 10.
Habitat.—The Ganges. *Presented by Nathaniel Wallick, Esq., 1812.*
1562. Skull of the great Gavial of the Ganges. Adult.
Crocodilus longirostris. *Hunterian. ?*
1563. Skull of the lesser or Slender-nosed Gavial.
Crocodilus tenuirostris—*Cuv.*:
 It appears doubtful whether this is a distinct species from the
Crocodilus longirostris. *Presented by the late Sir T. S. Raffles.*
1564. Extremity of the lower jaw of the small Slender-nosed Gavial. *Hunterian.*
1565. Teeth of a large Gavial. *Hunterian*

1566. Skull of a young Egyptian or Nilotic Crocodile.

Crocodylus vulgaris—*Cuv*: (Le Crocodile vulgaire d'Égypte—*Ib*:

Lacerta Crocodylus *Lin*: *Gm*:)

Fig.—*Cuv*: *Oss. Foss.* v. 2. *pl.* 1. *f.* 5. 12.

Habitat.—Africa:—the Nile.

Hunterian.

1567. Skull of a Nilotic Crocodile.

Crocodylus vulgaris.

Presented by Dr. Henderson, 1822.

1568. Skull of a Nilotic Crocodile.

Crocodylus vulgaris. (*Var. recurvirostris*.)

This skull presents a peculiarity in the direction of the snout,—which, at about three inches from its termination, is considerably elevated above the general plane of the skull, producing a marked concavity between the orbits and extremity of the nose.

Hunterian.

1569. Skeleton of a young Indian or Gangetic Crocodile.

Crocodylus biporcatus—*Cuv*: (*Lacerta Crocodylus*—*Lin*: *et Gm*:)

Fig.—*Cuv*: *Oss. Foss.* v. 2. *pl.* 1. *f.* 4. 13.

Habitat.—India:—the Ganges.

Mus. Heaviside.

1570. Skull and imperfect skeleton of a large Gangetic Crocodile.

Crocodylus biporcatus.

This skeleton was formerly preserved in the Museum of the Royal Society, at Gresham College, to which it was presented by Sir Robert Southwell, who received it from the East Indies. It is described and figured by Grew, in his “*Musæum Regalis Societatis*, 1681.” p 42. *pl* 4.

Mus. Brit.

1571. Skull and scutellum of a small Gangetic Crocodile.

Crocodylus biporcatus.

The animal was killed in the Ganges by Dr. Henderson, who presented the skull to the Museum, 1822.

1572. Scutellum of a Gangetic Crocodile.

Presented by the late Sir J. Banks, Bart., 1811.

1573. Skull of a Gangetic Crocodile.

Crocodilus biporcatus.

This specimen was from Bengal, where they are frequently found inhabiting the larger ponds.

Presented by N. Wallick, Esq.

1574. Skull of a Gangetic Crocodile. From Bengal.

*Crocodilus biporcatus.**Presented by N. Wallick, Esq.*

1575. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Mus. Brit.*1576. Skull of a Gangetic Crocodile. (*Imperfect.*)*Crocodilus biporcatus.**Presented by Dr. Henderson, 1822.*

1577. Skull of a Gangetic Crocodile. From Bengal.

*Crocodilus biporcatus.**Presented by Dr. Henderson, 1822.*

1578. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Presented by the late Sir T. S. Raffles.*

1579. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Presented by N. Wallick, Esq., 1812.*

1580. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Hunterian.*

1581. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Presented by Sir E. Home, Bart., 1807.*

1582. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Hunterian.*

1583. Skull of a Gangetic Crocodile.

*Crocodilus biporcatus.**Presented by Dr. Henderson, 1822.*

1584. Half of the lower jaw of a young Gangetic Crocodile.

The deciduous teeth are exposed, and some of the secondary or permanent set may be seen occupying their cavities.

Hunterian.

1585. The left humerus of a large Gangetic Crocodile.

Mus. Brit.

1586. The right humerus of a large Gangetic Crocodile, in longitudinal section.

Mus. Brit.

1587. Skull of a young Sharp-nosed Alligator, or Caïman.

Crocodilus acutus—Cuv : (Le Crocodile à museau effilé—*Ib :*

Caïman of the Colonists, and Natives of St. Domingo.)

*Fig.—Cuv : Oss. Foss. v. 2. pl. 1. f. 3. 14.**Habitat.*—The Island of St. Domingo, and others of the Great Antilles,*Hunterian.*1588. Skull of the Sharp-nosed Alligator. (*Imperfect.*)*Crocodilus acutus.**Mus. Brit.*

1589. The extremity of the jaws of a Sharp-nosed Alligator.

*Crocodilus acutus.**Hunterian.*

1590. Skull of a small Pike-nosed Alligator.

Crocodilus lucius—Cuv : (Le Caïman à Museau de brochet—*Ib :*)*Fig.—Cuv : Oss. Foss. v. 2. pl. 1. f. 8. 15. Cranium. Catesb : Carol. pl. 63.**Habitat.*—North America.

Dr. Leach, in the *Zoological Miscellany*, ii. p. 117. *pl.* 102. described as a new species, (by the name of *Crocodilus Cuvierii*,) an Alligator shot on Dauphine Island, South America; which, however, he subsequently identified as Cuvier's *Crocodilus lucius*.

1591. Skull of the Pike-nosed Alligator.

*Crocodylus lucius.**Hunterian.*

1592. Two large anterior teeth of an Alligator.

Hunterian.

1593. A large tooth of an Alligator.

Presented by Sir E. Home, Bart., 1813.

Genus LACERTA.

1594. The jaws of the great Aquatic Monitor of Egypt.

*Lacerta Nilotica—Forskall. (Lacerta dracæna—Lin :**Ouaran, of the Arabs.)**Fig.—Seba, Thes. 1. pl. 101. Geoff: Rept. d' Egypt. pl. iii. f. 1.**Habitat.—The Nile.**Hunterian.*1595. Half of the lower jaw of the great Aquatic Monitor of Egypt.
For the teeth.*Lacerta Nilotica.**Hunterian.*

1596. Skeleton of a Monitory Lizard.

*Lacerta monitor.**Fig.—Shaw, Zool. iii. pl. 66.**Habitat.—India.**Hunterian.*

1597. Skull of a Monitory Lizard. From Java. ?

*Lacerta monitor.**On one side exposing the deciduous and permanent teeth.**Hunterian.*

1598. Skull of the Uromastix of Egypt.

*Stellio Spinipes—Daud: (Le Fouette queue d' Egypt—Cuv :)**Fig.—Cuv: Oss. Foss. v. pl. xvi. f. 20, 21. ? Geoff: Rept. d' Egypt. pl. ii. f. 2.**Habitat.—The surrounding deserts of Egypt.**Hunterian.*

1599. Skeleton of the common Iguana of America.

Lacerta iguana—*Lin*: (*Iguana tuberculata*—*Laurenti*.)

Fig.—*Shaw*, *Zool.* iii. *pl.* 61.

Habitat.—North America; the Bahama and West Indian Islands.

Presented by Mr. Stutchbury, 1821.

1600. Skull of an Iguana. From India.

Lacerta iguana.

Hunterian.

1601. The jaws of a large Iguana. (For the teeth.)

Lacerta iguana.

Hunterian.

1602. The lower jaw of an Iguana. (For the teeth.)

Hunterian.

Genus CHAMÆLEO.

1603. Skeleton of the bifronted or Fork-nosed Chameleon.

Chamæleon bifurcatus—*Brongn*:

(*Le Caméléon des moluques à nez fourchu*—*Daud*:)

Fig.—*Cuv*: *Oss. Foss.* v. 2. *pl.* xvi. *f.* 32, 33.

Habitat.—The Molucca Islands.

Presented by Dr. Leach, 1818.

ORDER OPHIDIA.

Genus COLUBER.—(*Lin*:)Sub-Genus PYTHON.—(*Daud*:)

1604. The bones of the great Coluber, or Ular-Sawa of the Sunda Islands.

Coluber Javanicus—*Shaw*. (*Python améthiste*—*Daud*:)

Boa amethystina—*Schn*:)

Habitat.—India and the Indian Islands.

This specimen was brought from Bengal, and measures 12 feet 3 inches in length ; it is, probably, the Pedda-poda of the Bengalese, figured in Russel's *Indian Serpents*. Vol. i. *pl.* xxii, xxiii, xxiv.

Presented by ——— *Clark, Esq. ; Bengal Med. Service, 1830.*

1605. The vertebral column of a very large Coluber, from Jessore.

Although rendered imperfect by the absence of the skull, and some of the caudal vertebræ, in its present state it measures upwards of 14 feet in length.

It is perhaps a larger specimen of the preceding species.

Presented by N. Wallick, Esq., 1812.

1606. Skeleton of a Coluber. (Species uncertain.)

Hunterian.

ORDER BATRACHIA.

Genus RANA.—(*Lin.*)

1607. Skeleton of the common Russet Frog.

Rana temporaria—*Lin.*

Fig.—Shaw, *Zool.* iii. *pl.* 29.

Cuv : *Oss. Foss.* v. 2. *pl.* xxiv. *f.* 1, 2. Cranium.

Habitat.—Most parts of Europe.

Presented by the late H. Cline, Sen., Esq., 1824.

1608. Skeleton of the Zebra Frog.

Rana maxima—*Lin.* : (*Hylæ palmata*—*Daud.* :)

Fig.—*Cuv* : *Oss. Foss.* v. 2. *pl.* xxiv. *f.* 3. 28.

Habitat.—North America.

Hunterian.

1609. Skeleton of the Pipa or Surinam Toad.

Rana pipa—*Lin.* :

Fig.—Shaw, *Zool.* iii. *pl.* 50, 51. Seba, i. *pl.* lxxvii.

Cuv : *Oss. Foss.* v. 2, *pl.* xxiv. *f.* 6, 7, 29, 33, 34, &c.

Habitat.—South America ; particularly Surinam, and Cayenne.

Hunterian.

CLASS PISCES.

ORDER ACANTHOPTERYGII.—(*Cuv* :)

Genus SPARUS.

1610. Skull and jaws of the Sheep's-head Fish, or Sparus of North America. (*Imperfect.*)

Sparus Ovis. *Mitch* :

Fig.—*Bloch* : ?

Presented by Dr. Alexander Ramsay, of New York, 1816.

1611. Skull and jaws of a small Sparus.

Sparus Ovis.

Hunterian.

1612. Skull and jaws of a Sparus.

Hunterian.

1613. Jaws of a Sparus. From the Cape of Good Hope.

Presented by Dr. Leach, 1824.

1614. Jaws of the Lutian Sparus. ?

Sparus Lutianus—*Shaw*. (Lutianus Lutianus—*Bloch*.)

Fig.—*Bloch, Ichth. pl.* 244.

Habitat.—The American Seas.

Hunterian.

1615. Jaws of a Sparus.

Sparus Lutianus. ?

Hunterian.

1616. Jaws of a Sparus.

Sparus megalodon. ?

Mus. Brit.

1617. The lower jaw of a Sparus.

Caught off Malemba during the Expedition to the Congo, under the command of Captain Tuckey, R. N., in 1816.

Presented by Dr. Leach.

1618. The jaws of a Sparus. *Hunterian.*
1619. The jaws of a Sparus. *Hunterian.*
1620. The jaws of a Sparus. *Mus. Brit.*
1621. The jaws of a Sparus. *Mus. Brit.*
1622. The jaws of a Sparus. *Mus. Brit.*
1623. The jaws of a small Sparus. *Hunterian.*
1624. The lower jaw of a Sparus. *Mus. Brit.*
1625. Portions of the upper jaw of the Bufonite Sparus.
 Sparus Bufonites—*Cépède.*
 Fig.—Shaw, *Zool.* iv. *pl.* 62.
 Habitat.—The Mediterranean, Atlantic, and Indian Seas. *Mus. Brit.*
1626. The jaws of a Sparus. ? From the Cape of Good Hope.
 Called by the Dutch colonists and sailors "Steinbrass."
 Presented by the late William Norris, Esq.
1627. The superior pharyngeal bones of a Sparus. *Hunterian.*
1628. The superior pharyngeal bone of a Sparus. *Hunterian.*
1629. The superior pharyngeal bone of a Sparus. *Hunterian.*
1630. The superior pharyngeal bone of a Sparus. *Mus. Brit.*
1631. The superior pharyngeal bone of a Sparus. *Hunterian.*
1632. The inferior pharyngeal bones of a Sparus. *Hunterian.*

1633. The inferior pharyngeal bones of a Sparus. *Mus. Brit.*
1634. The inferior pharyngeal bones of a Sparus. *Mus. Brit.*
1635. The inferior pharyngeal bones of a Sparus. *Mus. Brit.*
1636. An inferior pharyngeal bone of a Sparus. *Hunterian.*
1637. Two dorsal vertebræ of a Sparus. *Hunterian.*
1638. A vertebra of a Sparus, in longitudinal section. *Hunterian.*
1639. Two vertebræ of a Sparus, in longitudinal section. *Hunterian.*

Genus CHÆTODON.

1640. Skeleton of a Chætodon. From Bencoolen.

Chætodon arthriticus. (Ikan bonna of the Malays.)

Fig.—*Philos. Trans.* lxxxiii. *tab.* v. and vi. from this specimen.

Habitat.—The Indian Seas.

Sent to England by William Bell, Esq., and presented to Mr. Hunter by Sir Joseph Banks, Bart.

“ The skeleton is very singular, many of the bones having tumours,
 “ which, in the first fish I saw, I supposed to be exostoses arising from
 “ disease; but on dissecting a second, I found the corresponding bones had
 “ exactly the same tumours, and the fishermen informed me they were
 “ always found in this fish: I therefore conclude them to be natural to it.
 “ In Mr. Hunter’s collection are two or three of these bones, but I never
 “ knew what fish they belonged to; they were supposed to be from the
 “ back of some of the large Rays. What advantage can arise from these
 “ large tumours is difficult to say. Those on the spines of the vertebræ
 “ seem to answer no evident purpose, nor those at the origin of the dorsal
 “ and anal fins. The particular form of the sternum, to which the ventral

“fins are joined, seems to be intended to give greater surface for the attachment of the muscles, and to increase their action.”—*Extract from Mr. Bell's paper on this fish, in the “Philosophical Transactions,” read January 17th, 1793.*

1641. Skeleton of the Light-horseman Fish, of North America. (*Imperfect.*)

Ephippus gigas—*Cuv* :

Habitat.—The American Seas.

Hunterian.

1642. Skull and lower jaw of the Light-horseman Fish.

Ephippus gigas.

Hunterian.

1643. Skull and bony crest of the Light-horseman Fish. (Jaws deficient.)

Ephippus gigas.

Hunterian.

1644. Skull and bony crest of the Light-horseman Fish. (Jaws deficient.)

Ephippus gigas.

Hunterian.

1645. Skull and jaws of a large Chætodon. (*Species uncertain.*)

Habitat.—The South Seas.

Resembling (by a similar bony crest) the American Chætodon, or Light-horseman Fish.

Hunterian.

1646. Moveable spinous processes of the large American Chætodon, or Light-horseman Fish.

Hunterian.

1647. Dorsal spinous processes of a Chætodon ;

Having osseous tubercles, as in the Chætodon arthriticus.

Hunterian.

1648. The anterior dorsal ray of an Indian Chætodon, with its moveable bones attached.

Chætodon arthriticus.

Mus. Lev.

1649. Jaws of a Chætodon. From India.

Allied to the Ikan bonna.

Hunterian.

1650. Jaws of a Chætodon. From Sumatra.

Hunterian.

1651. Anterior dorsal spinous process of an Indian Chætodon.

Mus. Brit.

1652. Anterior dorsal spinous process of an Indian Chætodon, (the moveable bones deficient).

Mus. Brit.

1653. Anterior dorsal spinous process of an Indian Chætodon, (the moveable bones deficient).

Mus. Brit.

1654. Anterior spine of the dorsal fin of the Ikan Bonna, (with its moveable bones).

Mus. Brit.

1655. Anterior spine of the dorsal fin of the Ikan Bonna, (with its moveable bones).

Mus. Brit.

1656. A rib of the Ikan Bonna, showing its peculiar osseous enlargement.

Hunterian.

1657. The anterior spine, or ray of the ventral fin of the Ikan Bonna, showing the osseous tubercle upon it.

Hunterian.

1658. A vertebra of the Ikan Bonna, showing the osseous tubercle on the superior and inferior spine.

Hunterian.

1659. A vertebra of the Ikan Bonna, showing the osseous tubercle on the superior and inferior spine.

Hunterian.

1660. The right clavicular bone of the Ikan Bonna, having the peculiar osseous tubercle upon it.

Hunterian.

1661. The osseous tubercle from the spine of the ventral fin of a large Indian Chætodon.

Mus. Brit.

1662. Anterior ray of the dorsal fin of a Chætodon, with its moveable bones.

Hunterian.

1663. Dorsal spinous process of a Chætodon, allied to *Ephippus gigas*, (with its moveable bones). From the South Seas.

Presented by Sir E. Home, Bart., 1807.

1664. Anterior dorsal ray of a Chætodon, with its moveable bones.

Hunterian.

1665. Anterior dorsal ray of a Chætodon, with its moveable bones.

Hunterian.

Genus XIPHIAS—(Lin :)

1666. Skull of the common Sword-fish. (*Imperfect.*)

Xiphias Gladius—*Lin :*

Fig.—Will : *Pisc. tab. I. 27.* Bloch, *Ichth. ii. pl. 76.*

Habitat.—The Mediterranean, and Northern Seas.

Mus. Brit.

1667. Head of the Sword-fish. (*Imperfect.*)

Xiphias Gladius.

Mus. Brit.

1668. The lower jaw of the Sword-fish. (*Imperfect.*)

Mus. Brit.

Genus ANARRHICHAS.—(*Lin* :)

1669. Skull of the Wolf-fish.

Anarrhichas Lupus—*Lin* : (Le Loup marin—*Cuv* :)

Fig.—Will : *Pisc. tab. H.* 3. *f.* 1. Bloch, *Icth.* ii. *pl.* 74.

Habitat.—Principally the Northern Seas.

Hunterian.

1670. Skull of the Wolf-fish.

Anarrhichas Lupus.

Hunterian.

1671. Skull of the Wolf-fish.

Anarrhichas Lupus.

Presented by Mr. Sewell.

1672. Upper and lower jaws of a Wolf-fish.

Hunterian.

1673. The lower jaw of a Wolf-fish.

Hunterian.

1674. Half of the lower jaw of a Wolf-fish, for the teeth.

Hunterian.

Genus LOPHIUS.—(*Lin* :)

1675. The lower jaw of the European Angler, or Frog-Fish.

Showing the ligamentous attachment to the jaw, of the internal rows of teeth.

Lophius piscatorius—*Lin* : (Le Diable de mer—*Bloch*.)

Fig.—Will : *Pisc. tab. E.* i. Bloch, *Icth.* ii. *pl.* 87.

Habitat.—The European Seas.

Hunterian.

1676. Lower jaw of the European Angler, for the teeth.

Hunterian.

1677. Lower jaw of an Angler, for the teeth.

The animal was caught in the North Atlantic Ocean, 1000 miles from land, in a bunch of sea-weed, by William Irish, Esq., Commander of the *Admiral Berkeley*, from Rio de la Plata, 16th May, 1809.

Presented by Sir William Blizard, 1809.

1678. Half of the lower jaw of the European Angler, for the teeth.
Hunterian.

1679. Portion of the lower jaw of the European Angler, for the teeth.
Hunterian.

Genus LABRUS—(*Lin* :)

1680. The head of a Labrus.
Mus. Brit.

1681. The jaws of a Labrus. ?
Presented by William Lynn, Esq., 1813.

1682. The jaws of a Labrus. ?
Hunterian.

1683. The lower, and half of the upper jaw of a small Labrus. ?
Hunterian.

1684. Superior and inferior pharyngeal bones of a Labrus.
Hunterian.

1685. The superior pharyngeal bones of the rufous Labrus.

Labrus rufus—*Lin* : (Hog-fish—*Catesby*.)

Habitat.—The American Seas.

Hunterian.

1686. The inferior pharyngeal bone of a Labrus.
Hunterian.

1687. Inferior pharyngeal bone of a Labrus.
Hunterian.

1688. Inferior pharyngeal bone of a Labrus.
Hunterian.

1689. Inferior pharyngeal bone of a Labrus.
Hunterian.

1690. Inferior pharyngeal bone of a Labrus.
Hunterian.

1691. Inferior pharyngeal bone of a Labrus.
Hunterian.

1692. Inferior pharyngeal bone of a Labrus.

Hunterian.

1693. Inferior pharyngeal bone of a Labrus.

Hunterian.

Genus SCARUS.—(*Lin :*)

1694. Skull of a large Scarus.

This specimen was formerly preserved in the museum of the Royal Society; and is figured in “*Willughbii de Historia Piscium*, Joannes Raius, “1686, *Tab. X. ii*:—*Ingentis cuiusdam piscis Indici caput, an e’Turdorum “genere. e M. S. R.*”

Mus. Brit.

1695. The head of a Scarus.

Hunterian.

1696. A longitudinal section of the anterior part of the skull and jaws of a large Scarus.

Hunterian.

1697. The jaws of a Scarus.

Hunterian.

1698. The jaws of the Rivulated Scarus.

Scarus rivulatus—Forsk :

Habitat.—The Red Sea.

Mus. Brit.

1699. The jaws of the Rivulated Scarus.

Hunterian.

1700. Jaws of a Scarus.

Hunterian.

1701. Jaws of a Scarus.

Hunterian.

1702. Jaws of a Scarus.

Hunterian.

1703. Jaws of a Scarus.

Hunterian.

1704. Jaws of a Scarus.

Hunterian.

1705. The jaws, with the superior and inferior pharyngeal bones of the Parrot-Scarus.

Scarus Psittacus.

Hunterian.

1706. Upper jaw of a Scarus,

One side of which has been divided by a longitudinal section, in order to show the arrangement of the denticuli within the bone.

Hunterian.

1707. The superior and inferior pharyngeal bones of a Scarus.

Hunterian.

1708. Superior and inferior pharyngeal bones of a Scarus.

Hunterian.

1709. Superior and inferior pharyngeal bones of a Scarus.

Mus. Brit.

1710. Superior and inferior pharyngeal bones of a Scarus.

Mus. Brit.

1711. Superior and inferior pharyngeal bones of a Scarus.

Hunterian.

1712. Superior and inferior pharyngeal bones of a Scarus.

Hunterian.

1713. Superior and inferior pharyngeal bones of a Scarus.

Hunterian.

1714. Superior and inferior pharyngeal bones of a Scarus.

Hunterian.

1715. Superior and inferior pharyngeal bones of a Scarus.

Hunterian.

Genus FISTULARIA.—(*Lin* :)

1716. The skull (with the first four vertebræ attached) of the slender
Fistularia or Tobacco-pipe Fish.

Showing the great length of the first vertebra of the spine.

Fistularia tabacaria—*Lin* :

Fig.—Bloch, *Ich.* vi. *pl.* 387.

Habitat.—The Indian and American Seas.

Hunterian.

1717. Portion of the spine of a Fistularia. ?

(*Cuv* : M.S. 1818.)

Hunterian.

1718. Spine of a Fistularia.

Hunterian.

1719. Spine of a Fistularia.

Hunterian.

1720. Spine of a Fistularia.

Hunterian.

1721. Spine of a Fistularia.

Hunterian.

1722. Spine of a Fistularia.

Hunterian.

1723. Spine of a Fistularia.

Hunterian.

Genus CYPRINUS.—(*Lin* :)

1724. The pharyngeal teeth and horny palate of a Carp 50 years old.

Cyprinus Carpio—*Lin* :

Fig.—Bloch, *Ich.* i. *pl.* 16.

Habitat.—Most parts of Europe.

Purchased 1812.

1725. Incipient teeth of a Carp.

Purchased 1812.

1726. Superior and inferior pharyngeal bones of the Chub.

Cyprinus Jases—*Lin* :

Hunterian.

Genus *Esox*.—(*Lin* :)

1727. Skull of the common Pike.

Esox lucius—*Lin* :*Fig.*—Bloch, *Ichth.* i. *pl.* 32. Will: *Pisc.* P. 5. *f.* 2. Shaw, *Zool.* v. *pl.* 108.*Habitat.*—The lakes and rivers of Europe ; and also in North America.*Hunterian.*

1728. Lower jaw and pharyngeal bones of a large Pike.

Purchased 1812.1729. Lower jaw of a large Pike, which weighed $16\frac{1}{2}$ lbs.*Presented by William Thompson, Esq.*, 1820.

1730. The head and skin of the Bony-scaled Pike.

Esox osseus—*Lin* : (*Le Caiman*—*Bonnat* :)*Fig.*—Will: *Pisc. tab.* P. 8. *f.* 2. from this specimen.Bloch, *Ichth.* vi. *pl.* 390.*Habitat.*—The lakes and rivers of the East and West Indies; and America.

This specimen was formerly preserved in the Museum of the Royal Society at Gresham College.

Mus. Brit.

1731. The head of the Barracuda Pike.

Esox Barracuda—*Shaw*. (*Barracuda*—*Catesby*.)*Fig.*—*Catesb* : *Carol.* ii. *pl.* 1.*Habitat.*—The Tropical Seas.*Hunterian.*

1732. The head of the Barracuda Pike.

Esox barracuda.*Mus. Brit.*

1733. The jaws of the Barracuda Pike, for the Teeth.

Hunterian.

1734. The jaws of the Barracuda Pike.

Hunterian.

1735. The lower jaw of the Barracuda Pike.

Hunterian.

1736. The lower jaw of the Barracuda Pike.

Hunterian.

1737. Portions of the jaws of the Barracuda Pike.

Mus. Brit.

1738. Skull of a Pike.

Esox Becuna?—*Shaw.* (*Sphyræna Becuna*—*La Cép.*)

Hunterian.

Genus *SILURUS*.—(*Lin.* :)

1739. A portion of the skull (with the dorsal spine) of a Silure. From the River Congo.

Silurus Congensis—*Leach.*

The following are the specific characters of this fish, given by Dr. Leach in the Appendix No. 4, to the “ Narrative of an Expedition to explore the river Zaire, usually called the Congo, in South Africa, in 1816 ; by Captain J. N. Tuckey, R.N.”

“ *Sp. 1. Silurus congensis.*—With the upper nostrils, the angles of the mouth, and each side of the chin furnished with a filament ; the first ray of the dorsal and pectoral fins serrated towards the point, which is unconnected with the second ray ; the second ray very much elongated and attenuated ; the laciniaë of the tail acute.”

“ *Obs.*—The first ray of the dorsal fin is only serrated towards its point, the unconnected apex itself being destitute of teeth. The first ray of the pectoral fins is serrated above the unattached part, and the teeth are continued downwards to near its middle. It is akin to *Silurus mystus* (*Geoff: Pois: de Nil*), but may be easily distinguished from it by the characters of the pectoral fins, and by the presence of the filaments on the chin. The filaments of the chin and nostrils are nearly of equal length ; those of the angles of the mouth are very long.”

Presented by Dr. Leach.

1740. The sternum of the Congo Silure, with the first rays of the pectoral fins attached.

Showing the peculiar mechanism of the joint by which their erection and depression is accomplished.

Presented by Dr. Leach.

1741. The jaws of the Fasciated Silure, of India.

Silurus fasciatus—*Lin* :

Habitat.—The Indian and South American Seas.

Presented by Claude Russell, Esq., the executor of Dr. Patrick Russell, to Sir Joseph Banks, Bart., and by him to the Museum, 1805.

1742. The jaws of the Fasciated Silure, of India.

Presented by Sir J. Banks, Bart., 1805.

1743. The doubly-serrated bony rays of the pectoral fins of the Acetabulated *Platystacus*, or Silure.

Silurus Aspredo—*Lin* : (*Platystacus cotylephorus*—*Bloch*.)

Fig.—*Bloch* : *Ichth.* vi. *pl.* 372.

Habitat.—The Indian Seas and Rivers.

Hunterian.

1744. The dorsal bony ray of a large Silure.

(*Blainville*, M.S., 1814.)

Presented by Mr. Chambers, 1812.

1745. The dorsal spine of a Silure.

Hunterian.

1746. The dorsal spine of a Silure.

Hunterian.

1747. The dorsal serrated ray of a large Silure.

Mus. Brit

1748. The dorsal ray of a Silure.

Mus. Brit.

1749. The dorsal ray of a Silure.

Mus. Brit.

1750. The dorsal ray of a Silure.

Mus. Brit.

1751. The dorsal ray of a Silure.

Mus. Brit.

Genus GADUS.—(*Lin :*)

1752. Skull of the Cod-fish.

Gadus morhua—*Lin :*

Fig.—Bloch, *Ichth.* i. *pl.* lxiv. Shaw, *Zool.* iv. *pl.* 22.

Habitat.—Principally the banks of Newfoundland.

Hunterian.

1753. Skull of a Cod-fish.

Gadus morhua.

Hunterian.

1754. Skull of a Cod-fish.

Gadus morhua.

Presented by B. C. Brodie, Esq., 1821.

1755. The cranium of a Cod-fish, (the bones of the jaws, and operculum deficient).

Gadus morhua.

Hunterian.

1756. The skeleton of the Haddock.

Gadus Æglefinus—*Lin :*

Fig.—Bloch, *Ichth.* i. *pl.* lxii.

Habitat.—The Northern Seas.

Presented by James Syme, Esq., 1821.

1757. Skull of the Ling.?

Gadus molva?—*Lin :*

Fig.—Bloch, *Ichth.* i. *pl.* lxix. Shaw, *Zool.* iv. *pl.* 23.

Habitat.—The Northern Seas.

Presented by B. C. Brodie, Esq., 1821.

1758. Skull of the Ling. ?

Gadus molva.

Hunterian.

1759. Half of the lower jaw of a Cod-fish, for the teeth.

Presented by B. C. Brodie, Esq., 1821.

1760. Part of the lower jaw of a Cod-fish, with the bones of the operculum attached.

Presented by B. C. Brodie, Esq., 1821.

1761. Part of the lower jaw of a Cod-fish, with the bones of the operculum attached.

Presented by B. C. Brodie, Esq., 1821.

1762. The os hyoides of a Cod-fish, with the opercular rays attached.

Presented by B. C. Brodie, Esq., 1821.

1763. The os hyoides of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

1764. The os hyoides of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

1765. The opercular bones of a Cod-fish. Separate.

Presented by B. C. Brodie, Esq., 1821.

1766. The os hyoides and opercular bones of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

1767. The articular bone of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

1768. The branchial arches and superior pharyngeal bone of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

1769. The superior pharyngeal bone of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

1770. The inferior pharyngeal bones of a Cod-fish.

Presented by B. C. Brodie, Esq., 1821.

Genus MURÆNA.—(*Lin*.)

1771. The skeleton of the Common Eel.

Muræna Anguilla—*Lin*: (*Anguilla vulgaris*—*Shaw*.)

Fig.—*Bloch, Icth. ii. pl. 73.* *Shaw, Zool. iv. pl. i.*

Habitat.—Most of the rivers of the Old World.

Hunterian.

1772. Skeleton of the Common Eel.

Muræna Anguilla.

Mus. Heaviside.

1773. Skull of the Common Eel.

Muræna Anguilla.

Hunterian.

1774. Skull and os hyoides of the Conger Eel.

Muræna Conger—*Lin*: (*Anguilla Conger*—*Shaw*.)

Fig.—*Bloch, Icth. iii. pl. 155.* *Will: Pisc. tab. G. 6.*

Habitat.—The Mediterranean, Northern, and American Seas.

1775. Skull of a species of *Muræna*.

Oxyrhynchus deliciosus?—*Leach*.

Caught off Malemba, during the Expedition to explore the river Congo, under the command of Captain Tuckey, in 1816.

Presented by Dr. Leach.

1776. Skull, and part of the lower jaw of a *Muræna*. (Species uncertain.)

In some particulars it appears allied to the preceding specimen from Malemba.

Mus. Brit.

Genus GYMNOTUS.—(*Lin.*)

1777. Half of the lower jaw of the Electrical Gymnote, for the teeth.

Gymnotus electricus—*Lin.*:*Fig.*—Bloch, *Icth.* iii. *pl.* 156.*Habitat.*—The large rivers of Africa and America; especially those of Senegal and Surinam.*Hunterian.*Genus DIODON.—(*Lin.*)

1778. The skull and skin of the Porcupine Diodon.

Diodon Hystrix—*Lin.*:*Fig.*—Bloch, *Icth.* ii. *pl.* 126. Will: *Pisc. tab.* I. 5.*Habitat.*—The Indian and American Seas.*Presented by L. Holker Potts, Esq., 1827.*

1779. The skull of the Porcupine Diodon.

Diodon Hystrix.

Hunterian.

1780. Jaws and skin of a small orbicular Diodon.

Diodon orbicularis. (*Diodon atinga*, *var.*—*Lin.* :)*Fig.*—Bloch, *Icth.* ii. *pl.* 127. Will: *Pisc. tab.* I. 4. *f.* 6.*Habitat.*—The seas of Jamaica, the Cape of Good Hope, and the Moluccas.*Mus. Brit.*

1781. Jaws and skin of a small orbicular Diodon.

Diodon orbicularis.

Hunterian.

1782. Skull of a large Diodon

Hunterian.

1783. Upper and lower jaws of a Diodon.

Hunterian.

1784. Upper and lower jaws of a Diodon.

Hunterian.

1785. Upper and lower jaws of a Diodon.

Hunterian.

1786. Upper and lower jaws of a Diodon.

Hunterian.

1787. Upper and lower jaws of a Diodon

Hunterian.

Genus TETRODON.—(*Lin :*)

1788. Jaws and skin of the Hispid Tetrodon.

Tetrodon hispidus—*Lin :*

Fig.—Bloch : *Ichth.* ii. pl. 142. Will : *Pisc. tab.* I. 1.

Habitat.—The Mediterranean and Indian Seas.

Presented by Robert Keate, Esq., 1825.

1789. Jaws of the Hispid Tetrodon.

Tetrodon hispidus.

Hunterian.

1790. Jaws of the Hispid Tetrodon.

Tetrodon hispidus.

Hunterian.

1791. Jaws of a Tetrodon.

Hunterian.

1792. Jaws of a Tetrodon.

Hunterian.

Genus BALISTES.—(*Lin :*)

1793. Skull of the Forcipated Balistes, or File-fish.

Balistes forcipatus—*Lin :*

(*Guaperva caudâ forcipatâ, pinnis maculosis, é Mus. Soc. Reg.-- Will.*)

Fig.—Will : *Hist. Pisc. tab.* I. 22.

Habitat.—The East and West Indian Seas.

Mus. Brit.

1794. Anterior portion of the jaws of a File-fish, with the teeth.

Hunterian.

Genus OSTRACION.—(*Lin* :)

1795. The osseous skin of a small Pyramidal Trunk-fish.

Ostracion turritus—*Lin* : (Le Chameau marin—*Bloch*.)*Fig.*—*Bloch*, *Ichth.* ii. *pl.* 136. Will : *Pisc. tab.* I. 9.*Habitat.*—The American and Indian Seas, particularly about the Moluccas.*Mus. Brit.*

1796. The osseous skin of the Snouted Trunk-fish.

Ostracion nasus—*Bloch*. (Le Coffre à bec—*Ibid* :)*Fig.*—*Bloch*, ii. *pl.* 138. Will : *Pisc. tab.* I. 11.*Habitat.*—Principally at the mouth of the Nile.*Hunterian.*

1797. The osseous skin of the Snouted Trunk-fish.

Ostracion nasus.

*Mus. Brit.*1798. The osseous skin of a Snouted Trunk-fish. (*Imperfect.*)

Ostracion nasus.

*Mus. Brit.*1799. The osseous skin of a Snouted Trunk-fish. (*Imperfect.*)

Ostracion nasus.

Mus. Brit.

1800. The osseous skin of the Horned Trunk-fish.

Ostracion cornutus—*Lin* :(Ostracion quadrangularis, spinis quatuor—*Bloch*.)*Fig.*—Will : *Pisc. tab.* I. 13. *f.* 1. *Bloch*, *Ichth.* ii. *pl.* 133.*Habitat.*—The Indian and American Seas, and also in the Nile.*Mus. Brit.*

1801. The osseous skin of the Horned Trunk-fish.

Ostracion cornutus.

Mus. Brit.

1802. The osseous skin of the Horned Trunk-fish.

Ostracion cornutus.

Mus. Brit.

1803. The osseous skin of the Horned Trunk-fish.

Ostracion cornutus.

Hunterian.

1804. A bottle, containing the ossicula auditus of the following species:—

1. Codling.—*Gadus morhua*.
2. Herring.—*Clupea harengus*.
3. Dace.—*Cyprinus leuciscus*.
4. Gudgeon.—*Cyprinus Gobio*.
5. Sole.—*Pleuronectes Solea*.
6. Plaice.—*Pleuronectes Platessa*.

Presented by Sir Anthony Carlisle, 1821.

1805. A bottle, containing the ossicula auditus of the following species:—

1. Of the Cod.—*Gadus morhua*.
2. Of the Haddock.—*Gadus Æglefinus*.
3. Of the Sword-fish.—*Xiphias gladius*.
4. Of the Sturgeon.—*Acipenser Sturio*.

Presented by Sir Anthony Carlisle, 1821.

ORDER CHONDROPTERYGII.—(Cuv:)

SECTION I.—With loose Branchiæ.

Genus ACIPENSER.—(Lin:)

1806. The branchiostegal bone of a large Sturgeon.

Acipenser Sturio—Lin:

Fig.—Bloch, i. pl. 88.

Habitat.—The Northern European and American Seas.

Hunterian.

1807. The branchiostegal bone of a Sturgeon.

Hunterian

Genus CHIMÆRA.—(*Lin* :)

1808. Skull of the Southern Chimæra.

Chimæra Callorhynchus—*Lin* : (Chimæra Australis—*Bloch*.)*Fig.*—Shaw, *Zool*. v. *pl.* 158, 158*.*Habitat.*—The Southern Seas.*Presented by Dr. Leach, 1824.*

SECTION II.—With fixed Branchiæ.

Genus SQUALUS.—(*Lin* :)

1809. The jaws of the Panther Shark.

Squalus Canicula—*Lin* :*Fig.*—*Bloch*, *Icth.* ii. *pl.* 112. Shaw, *Zool*. v. *pl.* 152.*Habitat.*—The European Seas principally.

Brought from the Cape of Good Hope by Captain Carmichael.

Presented by Dr. Leach, 1824.

1810. Jaws of the small Spotted Shark.

Squalus Catulus—*Lin* :*Fig.*—*Bloch*, *Icth.* ii. *pl.* 114.*Habitat.*—The Northern, Mediterranean, and Indian Seas.*Hunterian.*

1811. The jaws of a large White Shark.

Squalus Carcharias—*Lin* : (Le Requin of the French.)*Fig.*—*Bloch*, *Icth.* ii. *pl.* 119. Shaw, *Zool*. v. *pl.* 148.*Habitat.*—In most seas, but principally those of the warmer latitudes.*Hunterian.*

1812. Jaws of a large White Shark.

Squalus Carcharias.

Hunterian.

1813. Jaws of a White Shark.

Squalus Carcharias.

Mus. Brit.

1814. Jaws of a White Shark.

Squalus Carcharias.

Hunterian.

1815. A portion of the lower jaw of a White Shark, for the teeth.
Mus. Brit.
1816. A portion of the upper jaw of a White Shark.
Mus. Brit.
1817. A portion of the jaw of a White Shark.
Mus. Brit.
1818. A portion of the jaw of a White Shark.
Mus. Brit.
1819. Two separate teeth of a large White Shark.
Hunterian.
1820. The skeleton of the Blue Shark.
Squalus glaucus—*Lin* :
Fig.—Bloch, *Icth.* ii. pl. 86.
Habitat.—Principally about the British Coasts.
Hunterian.
1821. Jaws of a Shark.
Squalus heterodon—*Blainv* :
Presented by the Earl of Dysart, 1807.
1822. Jaws of the Squalus Heterodon.
Mus. Brit.
1823. Jaws of the Squalus Heterodon.
Mus. Brit.
1824. Jaws of the Squalus Heterodon.
Mus. Brit.
1825. Jaws of the Squalus Heterodon.
Mus. Brit.
1826. Jaws of the Squalus Heterodon.
Hunterian.
1827. Jaws of the Squalus Heterodon.
Mus. Brit.
1828. Jaws of the Squalus Heterodon.
Mus. Brit.

1829. Jaws of the *Squalus Heterodon*.*Hunterian.*1830. A portion of the jaw of the *Squalus Heterodon*.*Hunterian.*1831. A portion of the jaw of the *Squalus Heterodon*.*Mus. Brit.*

1832. The skull, and part of the spine of a small Porbeagle Shark.

*Squalus Cornubicus.**Fig.*—Borlase, *Hist. of Cornwall.**Habitat.*—The British Seas.

This species, from its magnitude when full grown, has, sometimes, been confounded with the *Sq. Carcharias*, or White Shark.

Presented by Dr. Leach, 1820.

1833. The jaws of the Porbeagle Shark.

*Squalus Cornubicus.**Mus. Brit.*

1834. The jaws of the Porbeagle Shark.

*Squalus Cornubicus.**Purchased.*

1835. The jaws of the Porbeagle Shark.

*Squalus Cornubicus.**Mus. Brit.*

1836. The jaws of a Shark. Species uncertain.

Squalus ?*Hunterian.*1837. The jaws of a Shark, distinct from the *Squalus Cornubicus*.*Squalus* ?*Mus. Brit.*

1838. A dorsal vertebra of the Basking Shark.

Squalus maximus—*Lin*: (Le Pélerin of French authors.)*Fig.*—*Philos. Trans.* xcix. pl. vi. Shaw, *Zool.* v. pl. 149, 150.Blainville, *Ann. du Mus.* xviii. pl. vi. f. 1.*Habitat.*—The Northern Seas.*Presented by Sir E. Home, Bart., 1809.*

This shark was caught in the fishing nets off Hastings, November 13th, 1808. The length of the animal was 30 feet 6 inches. In the *Philosophical Transactions* for 1809, Sir E. Home has given an anatomical notice respecting it; as also M. Blainville in the *Ann. du Mus. tom xviii.*

1839. A vertebra of the Basking Shark.

Presented by Sir E. Home, Bart., 1809.

1840. A vertebra of the Basking Shark.

Presented by Sir E. Home, Bart.

1841. A vertebra of a Basking Shark, caught at Brighton, in the year 1812.

Presented by Sir E. Home, Bart., 1813.

1842. Three caudal vertebræ of the Basking Shark, in longitudinal section, to show the peculiar structure of the intervertebral joints.

Fig.—Philos. Trans. xcix. pl. v. a section of the joint.

Presented by Sir E. Home, Bart.

1843. The corresponding section of the preceding specimen.

Presented by Sir E. Home, Bart.

1844. A portion of the jaws of the Phillipian Shark.

Squalus Phillipii—Blainv : M.SS.

Fig.—Phillip's Voy. to New South Wales.

Habitat.—The South Seas.

Mus. Brit.

1845. Jaws of the Port-Jackson Shark.

Squalus Jacksonii.

Habitat.—The neighbourhood of Port Jackson.

Described and figured in Governor Hunter's *Voy. to New South Wales.*

There is a skin of this species of shark preserved in the collection of the Linnæan Society.

Hunterian.

1846. The dentulous covering of the upper jaw of the Port-Jackson Shark.

Presented by Mr. Clift, 1820.

1847. Skull of the Angel Shark, or Monk-fish.

Squalus Squatina—Lin:

*Fig.—*Bloch, *Icth.* i. *pl.* 116. Shaw, *Zool.* v. *pl.* 155.

*Habitat.—*The European Seas.

This specimen was prepared by Mr. André.

Mus. Heaviside.

1848. Jaws of the Angel Shark.

Prepared by Mr. André.

Hunterian.

1849. The head, with the jaws and teeth of the Hammer-headed Shark.

Squalus Zygæna—Lin: (*Zygæna malleus—Valenciennes.*

Le Marteau of French authors.)

*Fig.—*Block, *Icth.* *pl.* 117. Will: *Pisc. tab. B.* i.

*Habitat.—*The Mediterranean, Indian, American, and Southern Seas.

Mus. Brit.

1850. A portion of the spine of a Shark.

Prepared by Mr. André.

Purchased 1812.

1851. A single tooth of a large Shark.

Hunterian.

1852. The snout or rostrum of a Saw-fish.

Squalus Pristis—Lin: (*Serra marina—Bellon. Pristis antiquorum—Lath:*)

*Fig.—*Bloch, *Icth.* ii. *pl.* 120. Will: *Pisc. tab. B.* 9. *Lin. Trans.* ii. *pl.* 26. *f.* 1.

*Habitat.—*The Mediterranean, American, Indian, and Northern Seas.

Hunterian.

Dr. Latham, in the *Linnæan Transactions*, (vol. ii. p. 276,) separates the Saw-fishes from the Genus *Squalus*, in which they had been placed by Linnæus; and proposes to place them in a new one, under the name of

Pristis; considering the variation in the form of the rostrum, and its spines or teeth, as affording sufficient characters for its division into species, of which he enumerates five, viz :—

1. *Pristis Antiquorum*.—The rostrum broad at its base, with, from eighteen to twenty-four spines on each side, thick and channelled at their posterior part, inclining to an edge in front.
2. *Pristis Pectinatus*.—The rostrum narrower than the preceding in proportion to its length; spines longer and more slender, varying from twenty-five to thirty-six on each side.
3. *Pristis Cuspидatus*.—Spines broad, flat, and lancet-formed; twenty-eight on each side.
4. *Pristis Microdon*.—Rostrum long, spines exceedingly short. The specimen to which this name was applied was but twenty-eight inches in length, and, most probably, a young animal, when the shortness of the spines would be the consequence of their being nearly concealed by a membrane that extends itself laterally on each side of the snout, sometimes even to the extremity of the spines, which, however, disappears in the adult.
5. *Pristis Cirratus*.—Rostrum long; spines very numerous, varying in length; having from three to five smaller ones interposed between the longer spines, which are sharp-pointed, and slightly recurved: there is also a secondary marginal set of small spines on the under surface of the rostrum—eighteen on each side: two cirri also arise, one on either side—about mid-way from the under part of the snout.

The number of specimens contained in the Museum allowing an opportunity of extensive comparison, they have been arranged according to Dr. Latham's division; retaining, however, at the same time, the Linnæan name.

1853. The rostrum of a Saw-fish.

Squalus *Pristis*. (*Pristis antiquorum*—*Lath* :)

Hunterian.

1854. The rostrum of a Saw-fish.
Squalus Pristis. (*Pristis antiquorum.*)
Hunterian.
1855. The rostrum of a Saw-fish.
Hunterian.
1856. The rostrum of a Saw-fish.
Hunterian.
1857. The rostrum of a Saw-fish.
Hunterian.
1858. The rostrum of a Saw-fish.
Hunterian.
1859. The rostrum of a Saw-fish.
Presented by Sir Alexander Johnston, 1821.
1860. The rostrum of a Saw-fish.
Hunterian.
1861. The rostrum of a Saw-fish.
Hunterian.
1862. The rostrum of a Saw-fish.
Mus. Brit.
1863. The rostrum of a Saw-fish.
Hunterian.
1864. The rostrum of a Saw-fish.
Mus. Brit.
1865. The rostrum of a Saw-fish.
Presented by Sir William Blizard.
1866. The rostrum of a Saw-fish.
Hunterian.
1867. The extremity of the rostrum of a Saw-fish, with three of the
 spines exposed in their sockets.
 One of the spines is in longitudinal section, to show its structure.
Hunterian.

1868. The rostrum of a young Saw-fish.

Squalus Pristis—*Lin*: (*Pristis antiquorum*—*Lath*:)

Hunterian.

1869. The rostrum of a young Saw-fish.

Hunterian.

1870. The rostrum of a young Saw-fish.

Hunterian.

1871. The head and rostrum of a Saw-fish.

Squalus Pristis—*Lin*: (*Pristis pectinatus*—*Lath*:)

Fig.—*Lin. Trans.* ii. *pl.* 26. *f.* 2.

Hunterian.

1872. The rostrum of a Saw-fish.

Hunterian.

1873. The rostrum of a Saw-fish.

Hunterian.

1874. The rostrum of a Saw-fish.

Hunterian.

1875. The rostrum of a Saw-fish.

Hunterian.

1876. The rostrum of a Saw-fish.

Hunterian

1877. The rostrum of a Saw-fish.

Hunterian.

1878. The rostrum of a Saw-fish.

Hunterian.

1879. The rostrum of a young Saw-fish.

Hunterian.

1880. The rostrum of a young Saw-fish.

Hunterian.

1881. The rostrum of a young Saw-fish.

Hunterian.

1882. The rostrum of a young Saw-fish.

Hunterian.

1883. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1884. The rostrum of a young Saw-fish.

Squalus Pristis—*Lin*: (*Pristis pectinatus*—*Lath*:)

Presented by Captain W. E. Parry, R.N., 1829.

1885. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1886. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1887. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1888. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1889. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1890. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1891. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1892. The rostrum of a young Saw-fish.

Presented by Captain W. E. Parry, R.N., 1829.

1893. The rostrum of a Saw-fish.

Squalus Pristis—*Lin*: (*Pristis cuspidatus*—*Lath*:)

Fig.—*Lin. Trans.* ii. pl. 26. f. 3.

Hunterian

1894. The rostrum of a Saw-fish.

Presented by Captain Home, 1818.

1895. The rostrum of a Saw-fish.

Hunterian.

1896. The rostrum of a young Saw-fish.

Hunterian.

1897. The rostrum of a young Saw-fish.

Hunterian.

1898. The rostrum and skin of the Cirrated Saw-fish.

Pristis cirratus—*Lath* :

Fig.—*Lin. Trans.* ii. *pl.* 26. *f.* 5. *pl.* 27.

Habitat.—The specimen described by Dr. Latham, was brought from Port Jackson, in New Holland, and precisely corresponds with this in length, and other particulars.

Hunterian.

Genus *RAJA*.—(*Lin* :)

1899. The jaws of the Thorn-back Ray.

Raja clavata—*Lin* : Prepared by Mr. André.

Fig.—Bloch, *Icth.* ii. *pl.* 83. Shaw, *Zool.* v. *pl.* 135.

Habitat.—The Mediterranean, and other Seas.

Hunterian.

1900. The jaws of the Thorn-back Ray.

Prepared by Mr. André.

Hunterian.

1901. The jaws of the Thorn-back Ray.

Hunterian.

1902. The jaws of the Rough Ray.

Raja rubus—*Lin* :

Fig.—Bloch, *Icth.* ii. *pl.* 84.

Hunterian.

1903. The skeleton of the common Skate.

Raja batis—*Lin* :

Fig.—Bloch, *Icth.* ii. *pl.* 79. Shaw, *Zool.* v. *pl.* 136.

Habitat.—The European Seas.

Presented by Joseph Henry Green, Esq., 1825.

1904. The skull of a Skate, with the sternum and branchial arches attached.

Raja batis.

Presented by B. C. Brodie, Esq., 1821.

1905. The skull of a small Skate, with the sternum and branchial arches attached.
Raja Batis.
Presented by B. C. Brodie, Esq., 1821.
1906. The jaws of a Skate.
Prepared by Mr. André.
Hunterian.
1907. The jaws of a large Skate.
Hunterian.
1908. The jaws of a Skate. From the Cape of Good Hope.
Raja Capensis—*Lin*:
Presented by the late William Norris, Esq.
1909. The jaws of a Ray. (*Species uncertain.*)
Hunterian.
1910. Portions of the dentulous covering of the jaws of a Skate.
Hunterian.
1911. Portions of the dentulous covering of the jaws of a Skate; the denticules obtuse.
Hunterian.
1912. Portions of the dentulous covering of the jaws of a Skate; the denticules conical and sharp.
Hunterian.
1913. A portion of the bony palate, or superior pharyngeal bone of a large Ray.
Hunterian.
1914. A portion of the superior pharyngeal bone of a large Ray.
Hunterian.
1915. The superior and inferior pharyngeal bones of a Ray. From Sumatra.
Prepared by Mr. William Bell.
Hunterian.

1916. The superior and inferior pharyngeal bones of a Ray.
Hunterian.
1917. The superior and inferior pharyngeal bones of a Ray.
Hunterian.
1918. A portion of the superior pharyngeal bone of a Ray.
Mus. Brit.
1919. A portion of the superior pharyngeal bone of a Ray.
Hunterian.
1920. A portion of the superior pharyngeal bone of a Ray,
Mus. Brit.
1921. A portion of the superior pharyngeal bone of a Ray.
Mus. Brit.
1922. A portion of the superior pharyngeal bone of a Ray.
Hunterian.
1923. The inferior pharyngeal bone of a large Ray.
Hunterian.
1924. The inferior pharyngeal bone of a large Ray.
Hunterian.
1925. The inferior pharyngeal bone of a Ray.
Mus. Brit.
1926. The inferior pharyngeal bone of a Ray.
Mus. Brit.
1927. A portion of the inferior pharyngeal bone of a Ray.
Hunterian.
1928. The tail of the Sting Ray, with its serrated spine attached.
Raja Pastinaca—*Lin* :
Fig.—Bloch, *Icth.* ii. *pl.* 82.
Habitat.—The Mediterranean, Atlantic, and Indian Seas.
Hunterian.
1929. The serrated spine of a Sting Ray.
Hunterian.
1930. The tail and spine of a Sting Ray.
Hunterian.

1931. The tail and spine of a Sting Ray.

Hunterian.

1932. The tail of a Sting Ray, with two spines.

Hunterian.

1933. The tail of the Eagle Ray, with two spines.

Raja Aquila—*Lin* :

Fig.—Will : *Pisc. tab. C.* 2. Bloch, *Icth.* ii. *pl.* 81.

Habitat.—The Mediterranean, Indian, and Atlantic Seas.

Hunterian.

1934. The tail of the Eagle Ray, 7 feet 8 inches in length, having five serrated spines.

Hunterian.

1935. The tail of a large Eagle Ray ? with its spine.

Hunterian.

Genus PETROMYZON.—(*Lin* :)

1936. The jaws of a Lamprey,—for the labial teeth.

Petromyzon marinus—*Lin* :

Fig.—Bloch, *Icth.* i. *pl.* 77.

Habitat.—The Northern Seas ; but ascending various rivers in the spring, particularly the Severn, in England.

Purchased 1812.

END OF PART III.

CATALOGUE
OF
THE CONTENTS OF THE MUSEUM
OF
THE ROYAL COLLEGE OF SURGEONS
IN LONDON.

PART IV.
FASCICULUS I.
COMPREHENDING THE FIRST DIVISION OF
THE PREPARATIONS OF NATURAL HISTORY IN SPIRIT.



LONDON:
PRINTED BY RICHARD TAYLOR,
RED LION COURT, FLEET STREET.

1830.

ADVERTISEMENT.

THE Specimens to which this part of the General Catalogue relates, consist for the most part of entire or undissected animals, and constitute one of the Three Great Divisions of Preparations in Spirit under the Head or Title of NATURAL HISTORY.

This Division originated in the preservation of natural objects transmitted to Mr. Hunter for the purposes of dissection ; which, accumulating as the reputation of the illustrious Founder increased and extended, and as the requisite leisure for their examination became abridged, at length enabled him to exhibit in a series the most remarkable differences in the outward forms of the animal kingdom.

It does not appear, however, that they were at any time instrumental in illustrating his opinions of the natural disposition and relations of the several classes of animals ; no other conclusion, indeed, could be drawn from their original position, than that they were intended to have been displayed in the Ascending order. It is therefore adhered to in the present arrangement ; but the specimens are separated into two groups, and approach the structures of the higher classes by two series ; one, leading through Inarticulate animals ; the other, through the Articulate or Annulose classes :—a plan which seemed best to accord with the relative position of the several classes of animals, whose structures are displayed in the respective series contained in the Gallery of the Collection.

With a few exceptions, those Classes and Orders are adopted which are characterized in the *Règne Animal* of Cuvier, and in the *Histoire Naturelle des Animaux sans Vertèbres* of Lamarck.

The specimens of the Class TUNICATA are arranged according to the method proposed by Mr. W. S. MacLeay in the 14th volume of the *Linnean Transactions*^a. The ENTOMAZOA or Intestinal Worms are distributed into the Orders and Genera founded by Rudolphi, and characterized in the *Entozoorum sive Vermium Intestinalium Historia Naturalis*, and in the *Entozoorum Synopsis* of the same author. The arrangement proposed by Dr. Leach in the Supplement to the *Encyclopædia Britannica* has been adopted for the CIRRIPEDES, and they have been distributed into the Genera there characterized. The CRUSTACEA have been distributed into the Genera proposed by that author in the 11th volume of the *Linnean Transactions*^b; but the families and orders of this class are those which are characterized by Latreille in the last edition (1829) of the *Règne Animal* of Cuvier; and the same authority is followed in the arrangement of the INSECTA, as far as a mode of preservation so inconvenient for their examination would permit.

To each individual specimen is given the Synonym of the Author with whose description, after a careful comparison, it seemed best to correspond. The same care has been taken in the references to the figures of the species; and where the opportunity was not afforded of comparing the specimen with the figure quoted, the reference is noted with the typographical mark †.

The appellatives and specific terms of Linnæus are taken from the 12th edition of his *Systema Naturæ*; those which are adopted from the 13th edition of Professor Gmelin, are marked *Gmel.* or *Linn. Gmel.*

In all the cases where a record has been preserved of the *Habitat* of the specimen, it is given after the Synonimes and Figure; but where that important part of the history of the specimen is wanting, the *Habitat* of the species is given on the authority of the author whose synonym is adopted.

Those specimens, which appeared to have been insufficiently, or hitherto not at all described, have been in some cases supplied with more detailed descriptions, or they are proposed as new species. The characters of the latter, however, rest

^a Art. XXV. p. 527.

^b Art. XXXI. p. 306. A Tabular View of the external Characters of Four Classes of Animals, which Linné arranged under *Insecta*. By William Elford Leach, M.D.

entirely on the responsibility of the individual intrusted with the execution of this portion of the Catalogue.

The simple numbers prefixed indicate the original Hunterian specimens; those which have the letters J. B. added to them were collected by Sir Joseph Banks during his voyage round the world with Captain Cook, and were presented by him to Mr. Hunter. The subsequent Donations and Additions to the Collection are interposed with the preceding by adding the letters A, B, &c. to the number corresponding to that of the Hunterian specimen which immediately precedes them: thus the Donation which follows No. 132 is marked 132 A.

The following are the Abbreviations most commonly used in this Fasciculus of the Catalogue:—

Linn. CAROLI A LINNE', Systema Naturæ, Ed. xii. Holm. 1767. 1768.

Linn. Gmel. or Gmel. CAROLI A LINNE', Systema Naturæ, Ed. xiii. cura Io. Frid. Gmelin. Lips. 1789.

Cuv. CUVIER, M. Le Chevalier, Le Règne Animal distribué d'après son Organization. Paris, 1817.

Lam. DE LAMARCK, M. Le Chevalier, Histoire Naturelle des Animaux sans Vertèbres. Paris, 1816, 1822.

Sav. SAVIGNY, JULES-CE'SAR, Mémoires sur les Animaux sans Vertèbres. Paris, 1816.

Sav. Ann. SAVIGNY, JULES-CE'SAR, Système des Annelides, principalement de celles des Côtes de l'Égypte et de la Syrie.

Rud. RUDOLPHI, CAROLO ASMUNDO, Entozoorum sive Vermium Intestinalium Historia Naturalis. Amstelædami, 1808.

Rud. Syn. RUDOLPHI, CAROLO ASMUNDO, Entozoorum Synopsis. Berolini, 1819.

Fabr. FABRICII, JOH. CHRIST., Entomologia Systematica Emendata et Aucta. Hafniæ, 1791, 1794.

Latr. LATREILLE, P. A. Genera Crustaceorum et Insectorum. Parisiis, 1806, 1809.

Latr. LATREILLE, P. A. Le Règne Animal, par M. le Baron Cuvier, Tom. iv. et v. Nouvelle édition. Paris, 1829.

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CATALOGUE.

NATURAL HISTORY.

VEGETABLES IN SPIRIT.

- No.
1. **THE** Radicle, Plumula, and Cotyledons of a Pea, shewing the process of vegetation.

Part of the plumula has been cut off; apparently to shew that the remainder has the power of throwing out new lateral shoots.

2. A yellowish fruit or berry, like that of some very large Solanum.
3. A fruit with a quadrifid integument with blunt divisions, allied to the genus Mespilus.
4. A fruit, like a diminutive lemon or lime.

- 4A. The fingered citron (*Citrus monstrosus*); from the West Indies.
Donor, Mrs. Robinson.

- 4B. *Anacardium orientale*.

A fine specimen of the cashew nut and apple, which, like some of the preceding specimens, has been included in a bottle when very small, and has grown there.

Donor, Sir Everard Home, Bart. V.P.R.S. &c.

- 4c. *Cheirostemon platanoides*. South American Hand-plant.

It is destitute of a corolla, the fructification being lodged in the calyx only.

It is also called *Cheiranthodendron*.

Donor, William Lynn, Esq.

5. A piece of Botany-Bay wood, three or four inches long, and an

inch and a half thick ; the wood white ; the bark fine pale cinnamon lake, and of a lamellated structure.

‘ From a tree of the size of a dwarf apple-tree.’

6. A beautiful specimen of Sea-grape *Fucus* (genus *Acinaria*).

The air-vesicles are pedicellated, pyriform, about half an inch in length, and are surmounted by a small filament, which, in one of them, terminates in a downy tuft. Its fructifications are small elongated bodies, attached in bunches, of from one to three inches in length, to the sides of the stem and to the base of the fronds.

7. *Fucus turbinatus*? *Linn. Gmel.*

A *Fucus* with the air-vesicles pedicellated, frequent, and alternate ; of a triangular form, expanding into a foliaceous crenate summit. The fructifications, like bunches of currants, are attached to the base of the peduncles of the air-vesicles.

8. *Fucus nodosus*, *Linn. Gmel.* The Knobbed *Fucus*.

Figured in Stackhouse’s *Nereis Britannica*, *pl.* 10.

Habitat species. Not uncommon on our coasts ; the specimen is probably from the coast of America, as many specimens of the striated barnacle (*Pentalasmis striata*) are attached to it.

9. The *Stipes* or roots of *Fucus loreus*.

Hab. sp. Isle of Portland, and some other parts of our coasts.

10. A section of a very singular hollow *Fucus* ; with a smooth internal surface, but tuberculated externally and supporting cylindrical branches.

Hab. ———

11. *Ulva lactuca*, *Linn.*

Hab. sp. European coasts.

12. *Ulva pavonia*, *Linn.*

Hab. sp. This beautiful species is common on the southern coast of France.

13. Group of some branched, capillary, dichotomous *Ulvæ* or *Confervæ* adhering to the stem of a *Fucus*.

14. Portion of a vertebra, with a group of Capillary *Confervæ* adhering to it ; the fibres of which, when magnified, appear flattened. Length about three inches.

ANIMALS IN SPIRIT.

DIVISION EVERTEBRATA.

Type ACRITA^a.

Class POLYPI.

Ordo VAGINATI. (Polypi with Polypiaries^b.)

No.

15. *Tubularia ramosa*, Lam. Linn. Branched Pipe Coralline.

Fig. in Ellis's Corallines, *pl.* 16. *fig.* a.

Hab. sp. European seas.

16. *Sertularia abietina*, Lam. Linn. Sea-fir Coralline.

Fig. Ellis's Corallines, *pl.* 1. *fig.* 2. b. B.

Hab. sp. European seas.

Numerous examples adhering to a long hollow stem or tube; some small Pollicipes are intermixed. The ovaries abound in winter-time.

17. *Sertularia geniculata*, Lam. Linn. Knotted Sea-thread Coralline.

Fig. Ellis's Corallines, *pl.* 12. *fig.* 19. b. B.

Hab. sp. European seas; often attached, as in the present example, to the podded fucus.

18. *Sertularia geniculata* :—repent and erect on a piece of fucus.

Many with the oval jar-shaped vesicles attached, which contain the germs of the future Corallines.

19. *Ascidia intestinalis*, overgrown by *Sertularia geniculata*.

"I have met with it on the coast of Sussex, growing upon the *Ascidia intestinalis* of Linn. Syst. Nat. ed. 12. p. 1087, which is a soft, white, membranaceous animal, nearly egg-shaped, that fixes itself by its base to rocks and shells; has two openings, one at the top and the other a little lower,

^a Nervous System molecular.

^b In thus rendering the *Polypes à Polypiers* of Lamarck, the term Polypiary is adopted, as according with the termination of Aviary and Apiary. Lamarck, indeed, illustrates his idea of the relation between the stony or corneous axis of the polypes, and the polypes themselves, by comparing the former to the nidi of social hymenoptera; but in the opinion of Linné and Pallas the connexion is of a much more intimate nature.

from whence it squirts out the water. On this the Knotted Sea-thread Sertularia, or Coralline, sends forth its root-like tubes, nearly in straight lines; from whence arise, at a small distance from each other, young sprigs about an inch high, properly furnished with their denticles and polype-heads, so as to form a beautiful little grove-like figure of this animal. This most elegant specimen I have preserved in spirits."—Ellis and Solander on Zoophytes, p. 49.

- 19 A. *Sertularia pumila*, *Lam.* Sea-oak Coralline.

Fig. Ellis's Corallines, *pl.* 5. *fig.* 8. a. A.

Hab. On the English coasts, frequently attached to the broad-leaved indented Sea-oak Fucus. This specimen is from the beach at Lancing, Sussex.

Donor, W. Clift, Esq. F.R.S.

- 19 B. A beautiful specimen of *Sertularia*, with the branches equidistant and placed in a spiral order round the stem; another species of *Sertularia* is intermixed.

Hab. Pacific Ocean. Collected in the Expedition of Captain Beechy in H. M. S. Blossom; and presented by G. Tradescant Lay, Esq. 1828.

20. *Sertularia*.

Hab. ———

21. *Sertularia*.

Hab. ———

- 22 J. B. A fine group of *Sertularia* or *Antennularia*, growing from the margin of one of the valves of a large *Mytilus*.

Hab. Pacific Ocean.

23. *Antennularia ramosa*, *Lam.* *Sertularia antennina*, *Ellis.* Lobster's-horn Coralline.

Fig. Ellis's Corallines, *pl.* 9. *fig.* 14. b. from a dried specimen.

Hab. sp. European seas.

This is a fine specimen of the branched variety.

24. *Plumularia falcata*, *Lam.* *Sertularia falcata*, *Linn.* Sickle Coralline.

Fig. This species is the conspicuous centre figure in the Frontispiece to Ellis's Corallines; also figured dry, at *pl.* 7. *f.* 11. a. A.

Hab. sp. "This Coralline is common on the coast of Kent, near Sheerness, in the Isle of Sheppey; and on the shores of many other parts of these kingdoms."—Ellis.

A beautiful group on the shell of a bivalve.

25. *Plumularia pinnata*, *Lam.* *Sertularia pinnata*, *Solander.* Jointed Sea-bristle Coralline.

Fig. Ellis's Corallines, *pl.* 11. *fig.* 16. a. A.; *pl.* 38. *fig.* 4.

Hab. sp. Coasts of England and France:

Many elegant specimens, attached to a portion of *Fucus lendigerus*.

26. *Cellaria salicornia*, *Lam.* *Cellaria farciminoides*, *Ellis.* Bugle Coralline.

Fig. Ellis's Corallines, *pl.* 23.

Hab. sp. Mediterranean; a well-known species.

Along with the *Cellaria* are some specimens of *Plumularia myriophyllum*, *Lam.*

27. *Cellaria salicornia*.

28. *Dichotomaria lapidescens*, *Lam.* *Corallina lapidescens*, *Solander.* Stony dichotomous Coralline.

Fig. Ellis's Zooph. *pl.* 21. *fig.* 9.

Hab. sp. The coasts of Teneriffe.

29. *Dichotomaria lapidescens*.

In this specimen the downy or tomentose covering of the joints is in many parts preserved.

30. *Dichotomaria rugosa*? *Lam.* Annulate rugose Coralline.

This specimen manifests the character "*articulis cylindricis annulato rugulosis subcontinuis*"; but is much smaller than the figure quoted by Lamarck; viz. Ellis's Zoophytes, *pl.* 22. *fig.* 3.; it is of the size of *Corallina fragilissima*, figured in *pl.* 21. *fig.* d. of the same work.

31. A portion of *Fucus* of which the stem is incrustated with *Flustra telacea*, *Lam.* Network Sea-mat.

32. *Flustra pilosa*, *Lam. Linn.* Hairy Sea-mat.

Fig. Ellis's Corallines, *pl.* 31. b.

Hab. sp. European seas; commonly encrusting Fuci and other marine

plants, and sometimes raising itself into a leafy figure. In the present specimen it invests in an elegant manner the ramifications of *Fucus ceranoides*.

33. *Flustra pilosa*. Hairy Sea-mat.

The variety which rises into irregular leaf-like forms.

34. *Tubipora musica*, *Linn.* Red Organ-pipe Coralline.

Hab. sp. "When Mr. Banks and Dr. Solander saw them in vast abundance on the coast of New South Wales, they appeared upon the tide of ebb covered over with a striated gelatinous substance, which was so extremely slippery, that it was dangerous to tread upon them. The animal that inhabits them appeared to fill both the tube and inner little pipe; but they had not time to examine them alive in sea water, from the dangerous situation they were in themselves."—Ellis's *Zoophytes*, p. 144. pl. 27.

34 A. Specimens of *Arcturus tuberculatus*, *Latr.* (*Cuv. Règne Animal, nouv. ed. iv. p. 139.*) infested with parasitic *Sertulariæ*, *Flustræ*, and small *Madreporæ*.

Collected in the Northern Expedition of Captain Parry, 1820, and presented by Alexander Fisher, Esq., Surg. R.N.

34 B. A portion of *Madrepore*, of the genus *Astrea*, *Lam.*, with the animal part remaining in the cells.

Hab. ———

Donor, the Rev. Dr. Buckland, F.R.S. F.G.S. &c.

35. *Melitæa coccinea*, *Lam.* *Isis coccinea*, *Ellis, Linn.* Dwarf Scarlet *Isis*.

Fig. Ellis's *Zoophytes*, pl. 12. fig. 5.

Hab. sp. Indian Ocean. Coast of the Mauritius.

36. *Gorgonia pennata*. *Var. B, cortice albido flavescente*, *Lam.* *Var. A, Americana*, Lamouroux.

Fig. Ellis's *Zoophytes*, pl. 14. fig. 3.

Hab. sp. The Antilles and West Indies.

Many of the small Polypes with their ciliated tentacula may be seen extending from the lateral pores.

37. *Gorgonia alba* ? *Lam.*

A small species, habit flat, with alternate doubly pinnate branches.

Hab. ———

Adheres to a coriaceous tube, probably of an Annelide.

38. *Gorgonia.*

Vide *No. 2. pl. 18.* Ellis's Zoophytes.

39. *Corallina officinalis*, *Lam. Linn.* Common Coralline.

Fig. Ellis's Corallines, *pl. 24. fig. 2.*

Hab. sp. The European seas.

This group, which is attached to the shell of a limpet (*Patella vulgata*), seems to be the second variety of Lamarck, *minor et tenuior.*

40. A similar group of *Corallina officinalis*, intermixed with *Corallina rubens*, on a *Patella*.

41. *Flabellaria tuna*, *Lam.* *Corallina tuna*, *Ellis.*

Fig. Ellis's Zoophytes, *pl. 20. fig. E.*

Hab. sp. Mediterranean.

42. *Spongia*; to which many specimens of *Zoanthus Ellisii* (*No. 72.*) are attached.

43. A section of a simple, radiated, subpedicellated Sponge or *Alcyonium*, attached by a contracted base to a pebble.

44. A branched Sponge, intermixed with *Cellaria salicornia*, *Sertulariæ*, *Plumulariæ*, *Ascidia*, &c.

45. *Spongia*? from Sumatra.—It is a slender substance, of a cancellated or honeycomb structure, and consists of upright laminæ slightly muricated on the edges.

46. A portion of cancellated and lamellated Sponge similar to the preceding; from Sumatra.

47. *Spongia plicifera*, *Lam.*

Hab. sp. The seas of America.

47 A. *Spongia mammillaris*, *Müller, Zool. Dan. iv. v. 44.*

Fig. *Zool. Dan. tab. clviii. fig. 3, 4.*

Hab. Northern Ocean. Collected in the Northern Expedition, 1820, and presented by Captain Edward Sabine, F.R.S.

47 B. *Spongia mammillaris*^a.

Collected in the Northern Expedition, 1820, and presented by Alexander Fisher, Esq.

47 c. *Tethia lyncurium*, *Lam. Mém. du Museum*, i. var. 2. *Fibris radiantibus arcuatis, compositis*, p. 69-70.

Fig. Esper. Suppl. 2. *pl.* 19. *fig.* 4, 5. †

Hab. Shores of Abyssinia.

Donor, Henry Salt, Esq. 1811.

48. *Alcyonium favosum*? *Lam.*

Hab. Sumatra.

Ordo TUBIFERI.

49. *Lobularia digitata*, *Lam.* *Alcyonium digitatum*, *Linn.*

Fig. Ellis's *Corallines*, *pl.* 32. *fig.* 3. a. A.

Hab. Coasts of England.

Adhering to a pebble. A section is made to show the structure.

50. *Lobularia digitata*, on the stem of a fucus.

Clusters of ova are found in autumn at the base of the polypi of the *Lobularia*.

51. *Lobularia digitata*, with smaller, more elongated and frequent lobes than in the preceding specimens.

Hab. ———

51 A. *Xenia umbellata*, *Sav. Lam.*

Hab. The specimen is from Abyssinia, and adheres to a portion of coral rock.

This is one of the most remarkable of the compound animals. The polypi, furnished with eight pectinated tentacles, are clustered like flowers at the extremities of the stems proceeding from the fixed base.

Donor, Henry Salt, Esq. 1811.

^a Lamarck has not noticed this species. From its texture, as exhibited in this section, it would appear to belong to his genus *Geodia*.—*Anim. sans Vertèbres*, ii. p. 387.

Ordo NATANTES.

52. *Veretillum cynomorium*, *Lam.*

Fig. Phil. Trans. liii. *tab.* xxi. *fig.* 3, 4, 5. The finger-shaped Sea-pen.

Pallas, *Miscell. Zool. tab.* xiii. *fig.* 1—4. *Pennatula cynomorion*.

Hab. sp. Mediterranean.

53. *Pennatula phosphorea*, *Lam. Linn.* *Pennatula britannica*, *Ellis.*

Fig. Phil. Trans. liii. *tab.* xix. *fig.* 1—5.

Hab. sp. Coasts of England; European seas.

The stem and the extremities of the pinnæ of this specimen are white,—it seems approaching to the white variety.

54. *Pennatula phosphorea*, of a deep red colour.55. White and red variety of *Pennatula phosphorea*.56. *Pennatula grisea*, *Lam.* Gray spiny *Pennatula*.

Fig. *Esper*, *Suppl. 2. tab.* i. †

Hab. sp. Mediterranean.

57. *Pennatula argentea*, *Lam. Linn. Gmel.*

Fig. *Soland. & Ellis*, *Zooph. pl.* 8. *fig.* 1, 2, 3.

Hab. sp. East Indian Ocean. Its form is longer, and the pinnæ are shorter and more numerous than in the preceding species.

The specimen is suspended by the extremity of the bony axis of the body, which is drawn out a little way.

58. A very fine specimen of *Pennatula argentea*.

Of all the genus this species is the most remarkable for the brilliant phosphorescent light which it emits in the night season.

59. *Renilla americana*, *Lam.* *Pennatula reniformis*, *Solander.* Kidney-shaped *Pennatula*.

Fig. Phil. Trans. liii. *tab.* xix. *fig.* 6—10.

Hab. sp. Coasts of South America.

60. *Renilla americana*.

In this specimen, half of the side to which the Polypi are attached has been dissected off, to show the ramifications of the trunk; the radiated side is left entire.

61. The portion of *Renilla americana* removed from the preceding preparation.
62. *Renilla americana* ?—appears to have been subjected to the action of an acid, and to have been divided by a longitudinal section to show its structure.
63. *Virgularia juncea*, *Lam.*
Fig. Esper, Suppl. 2. tab. iv. †
Hab. sp. European seas.
- Part of the bone only of this species. The best figure of this genus is that of *Virgularia mirabilis*, in Müller's *Zoologia Danica*, tab. xi. See also Professor Grant's description in Brewster's *Philosophical Journal*, vii. p. 30.

Type RADIATA.

Class ACALEPHÆ.

Ordo LIBERÆ.

(*Hydrostaticæ.*)

64. *Physalis pelagica*, *Lam.* *Holothuria physalis*, *Linn. Amœnitates Academicæ*, iv. p. 254. The Portuguese Man-of-War, Frigate, or Sea-nettle of sailors.
- Fig.* Linn. *Amœn. Acad.* tab. iii. fig. 6. *mala.* Bory de St.-Vincent, *Voyage en quatre Iles d'Afrique*, pl. 54. fig. 1.
- Hab. sp.* Tropical seas. Are seen floating on the sea during calms, but sink and disappear in tempestuous weather; attaching themselves to marine bodies during the agitation of the waters. When handled, they exude a subtile fluid, which causes much pain and heat. In the specimen the tentacula are retracted or lost.
- 64 A. A singularly fine specimen of *Physalis pelagica*.
- The tentacula extending from the inferior surface of the animal are of two kinds; some are short and thick, others remarkable for their length, and for the lively and brilliant colours which they reflect during life.
- Hab.* Gulf of Mexico.
- Donor*, Mr. Bullock.

(Medusidæ.)

- 64 B. *Beroë*, Müller, *Zool. Dan. Prodr.* p. xxix.
Hab. Northern Ocean.
Donor, Capt. Ross, R.N. 1818.
- 64 c. Specimens of *Beroë ovatus*? Bruguière, *Encycl. Méth. Vers.* p. 175.
 These and the preceding specimens are much contracted by the spirit.
Hab. Arctic Ocean.
Donor, Lieut. Parry, R.N. 1818.
65. *Velella mutica*, Lam. *Medusa velella*, Gmel. The Sally Man.
Fig. Browne's Jamaica, *pl.* 48. *fig.* 1.
Hab. sp. Atlantic Ocean.
 The bone or fulcrum only of this species.
- 66 J. B. *Velella limbosa*, Lam.
Fig. Forsk. *Ægypt. tab.* xxvi. *fig.* K.
Hab. ———
67. *Porpita gigantea*.
Fig. Péron et Le Sueur, *Voyage*, *pl.* 31. *fig.* 6. †
Hab. Atlantic Ocean.
68. *Medusa hemisphærica*, Müller, Gmel.
Fig. Müller, *Zool. Dan. tab.* vii. *fig.* 1—5.
 Many small specimens.
69. *Medusa*, with a crenate margin, and tentacula. *Callirhoe*? Lam.
- 69 A. *Medusa*, with a single central inferior mouth, and four tentacular arms; no tentacula at the margin. *Orythia*? Lam.
 The fibrous structure beneath the integument is very distinct in this specimen.
Donor, Sir A. Carlisle, F.R.S. F.L.S. &c.
70. A small *Medusa*, with tentacula at its circumference, and a pedunculated mouth, of the genus *Dianæa*, Lam.
71. *Aurelia aurita*, Lam. *Medusa aurita*, Linn. Gm.
Fig. Müller, *Zool. Dan. tab.* lxxvi.
Hab. sp. The Baltic.

72. Cassiopea, *Lam.* A small species.

Bristles are placed in the four orifices, situated on the inferior surface.

73. A small Medusa. Gen. *Cyanea?* *Lam.*

Hab. ———

- 73 A. Luminous Medusæ, of very small size.

Hab. Brought from the Red Sea. They were in such profusion, that the proportion of Medusæ to the water was fully one-third, perhaps nearly half. They were luminous only while alive.

Donor, Henry Salt, Esq. 1811.

Ordo AFFIXÆ.

(*Actiniadæ. Sea Anemones.*)

74. Zoanthus *Ellisii*, *Cuv.* *Actinia sociata*, *Ellis.* Clustered Animal Flower.

Fig. Phil. Trans. vol. lvii. pl. 19. fig. 1, 2.

“Though I have had the clusters of this animal drawn erect on a rock, I am persuaded, from the slenderness of their make, their situation would be more natural if they were inverted.” *Ellis's Zooph.* p. 5.

In the present example they are attached to the whole circumference of some central substance, and extend from it in every direction.

Hab. sp. West India Islands. The specimens examined by *Ellis* were from Dominica.

75. Zoanthus *Ellisii*.

Some of the individuals in this group being less contracted than the preceding, the extremities of the radiated tentacula may be seen. These and the structure of the cavity are shewn in Nos. 260, 261, Gallery Series.

- 75 A. Two solitary specimens of Zoanthus, each adhering to a pebble.

Hab. Northern Ocean.

Donor, Captain Buchan, R.N.

- 76 J. B. Zoanthus *Banksii*, *R. Owen.*

Many specimens of fixed Acalephæ, some single, others attached by two and three to a common base. In length about one inch and a half, although doubtless contracted by long maceration in spirit; in form cylindrical, and

about three or four lines in diameter. Exteriorly they are muricated, and furrowed longitudinally; their interior presents an inverted hemispherical mouth or proboscis, with retracted tentacula, and a membranous stomach loosely connected to the sides of a cavity which extends to within half an inch of their base. Along the sides of this cavity there are also longitudinal plicæ of membrane, with an appearance of minute spiral tubes running along their free margins, most probably the ovaries.

Their fixed condition, and participation of a common base, point out the genus *Zoanthus* of Cuvier as their proper situation; whilst their structure appears to corroborate the opinion of that celebrated author as to the rank of the genus itself in the scale of animal life. See *Règne Animal*, iv. p. 43; and on the other hand, Lamarck, *Anim. sans Vert.* ii. p. 65.

Hab. Society Isles.

77. *Actinia rufa*, *Lam. Linn.* Red *Actinia*, or Sea Anemone.

Fig. Müller, *Zool. Dan. tab.* xxiii.

Hab. sp. Northern European seas.

78. *Actinia rufa*?

Two specimens, but their original colour is lost.

79. *Actinia crassicornis*, *Lam. Linn.*

Fig. Baster, *Opusc. Subs. tab.* xiii. *fig.* 1.

Hab. sp. European seas.

A fine specimen, in the expanded state.

80. *Actinia crassicornis*.

This specimen is contracted into a conical form.

81. *Actinia crassicornis*.

The base contracted, and the aperture of the mouth drawn open.

82. *Actinia mesembryanthemum*? *Ellis*.

Much contracted, a lozenge-shaped portion cut out of the base.

83. *Actinia anemone*, *Lam. Ellis.* Sea Anemone.

Fig. *Encycl. Méth. pl.* 70. *fig.* 5, 6.

Hab. sp. American Ocean.

84. *Actinia helianthus*, *Lam. Ellis.* *Hydra helianthus*, *Linn.* Sea Sunflower.

Fig. Encycl. Méth. *pl.* 71. *fig.* 1. 2.

Hab. sp. American Ocean.

Mr. Ellis observes, "The tentacles or claws of all these animal flowers that were preserved in spirits are greatly contracted."—Hist. of Zoophytes.

Class ECHINODERMATA.

(*Asteriadae.* *Starfish.*)

85 J. B. *Alecto*, *Leach*, *Zoolog. Miscell.* ii. *p.* 61. *Comatula solaris*?
Lam.

Hab. Society Isles.

The dorsal rays of this specimen are lost; but the tubular projecting mouth, also characteristic of the genus, is well shown.

85 A. *Alecto glacialis*, *Leach*.

Hab. A very fine and perfect specimen brought up from 226 fathoms, in

Lat. 80° 26' N. Long. 12° 30' E. By H. M. S. *Dorothea*.

Donor, Captain Buchan, R.N. 1818.

85 B. *Alecto glacialis*.

Caught in the same latitude and longitude as the preceding.

Donor, Captain Buchan, R.N. 1818.

85 C. *Alecto glacialis*.

Hab. In 250 fathoms; Lat. 80° 26' N. Long. 11° 32' E. By H. M. S. *Trent*.

Donor, Lieutenant Franklin, R.N.

86 J. B. *Alecto carinata*? *Leach*. The carinated *Alecto*.

Hab. Society Isles.

87. *Alecto carinata*, *Leach*.

Hab. ———

87 A. *Euryale verrucosum*, *Lam.* *Asterias Euryale et caput Medusæ*,
Gmel.

Fig. Linck, *Stell. Mar.* *p.* 65. *tab.* xxix. *Astrophyton scutatum*.†

Hab. Indian Ocean.

87 B. *Euryale costosum*, *Lam.*

Fig. *Encycl. Méth. pl.* 130. *fig. mala.* Seba, *Mus.* iii. *tab.* 9. *fig.* 1. *bona.*

Shaw, *Nat. Miscell.* iii. *pl.* 103? *Asterias caput Medusæ.*

Hab. sp. American seas.—The curiously branched rays are said to serve the purpose of a living net, and to inclose by their sudden contractions the objects which constitute the food of this species.

88. *Euryale asperum*, *Lam.* *Asterias caput Medusæ*, *Linn.*

Fig. Seba, *Mus.* iii. *tab.* ix. *fig.* 2. *Encycl. Méth. pl.* 127.

Hab. sp. Norwegian, Mediterranean, and Indian seas.

The pointed tubercles in this specimen are confined to the dorsal or superior aspect of the rays.

89. *Ophiura*,—a large and beautiful species.

The disk flat, subpentagonal, its diameter one inch two-thirds; the five inter-radial divisions terminating towards the mouth, each in a small round scale. The rays five in number, cylindrical, gradually attenuated to their extremities, with transverse rows of small spines laterally, as if the squamæ were ciliated. The diameter, taken from the extremities of the extended rays, is sixteen inches.

Hab. ———

An *Oph. lacertosa*? *Lam.*

90. *Ophiura lacertosa*, *Lam.*

The inferior specimen is the *Var.* 2. *eadem radiis fusco vel spadiceo maculatis.*

Fig. *Encycl. Méth. pl.* 122. *fig.* 4; *pl.* 123. *fig.* 1.

Hab. sp. European seas.

A portion of the tegument is removed from the dorsal aspect of the disk to show the internal structure.

91. *Ophiura echinata*, *Lam.* *Asterias aculeata*, *Linn.* Thick-spined

Ophiura. *Var.* 1. *spinis crassis.*

Fig. *Encycl. Méth. pl.* 124. *fig.* 2, 3.

Hab. ———

92 J. B. *Ophiura echinata.* *Var.* 2. *dorso lævi, spinis tenuioribus.*

Hab. Society Isles.

93 J. B. *Ophiura echinata.*

Hab. Society Isles.

- 93 A. *Ophiura echinata*, Lam. *Var. 3. radiis versus extremitates magis attenuatis.*

Fig. Müller, Zool. Dan. tab. xciii. *Asterias nigra.*

Hab. Northern Ocean. By H. M. S. Trent, 1818.

Donor, Lieutenant Franklin.

- 93 B. *Ophiura squamata*? Lam.

Vide Müller, Zool. Dan. tab. xcix. *Asterias aculeata.*

Hab. Northern seas. Two specimens, by H. M. S. Dorothea.

Donor, Captain Buchan, R.N. 1818.

- 93 C. *Ophiura ciliaris*? Lam.

Linck, Stell. Mar. tab. xxxiv. fig. 56. †

Hab. Northern Ocean.

Donor, Captain Buchan, R.N. 1818.

- 93 D. *Ophiura ciliaris.*

A small specimen, from the Arctic seas. Northern Expedition, 1820.

Donor, Alexander Fisher, Esq. Surg. R.N.

94. *Asterias discoidea*, Lam.

Fig. Encycl. Méth. pl. 97. fig. 3; pl. 99. fig. 3.

Hab. ———

- 95 J. B. *Asterias exigua*, Lam. *Asterias minuta*, Gmel.

Fig. Seba, Mus. iii. tab. v. fig. 13—15.

Hab. Society Isles.

96. *Asterias exigua*,—with a variety *lobis senis.*

Hab. ———

97. *Asterias gibbosa* of Pennant, Brit. Zool. iv. p. 62. no. 59.

Hab. sp. South coast of England.

98. *Asterias rosacea*, Lam.

Fig. Encycl. Méth. pl. 99. fig. 2, 3.

Hab. ———

This species bears a great resemblance in its singular flatness of form to the *Ast. membranacea* of Gmelin; but differs in the angles of its lobes being less acute, and in its want of scales on the dorsal disk; the tegument on this aspect has very much the appearance of the fish-skin called shagreen.

99. *Asterias rosacea*.

One of the clefts of the lobes is continued to the centre of the disk.

99 A. *Asterias rubens*.

A large specimen from the Arctic seas. Northern Expedition, 1820.

Donor, Alexander Fisher, Esq. Surg. R.N.

99 B. *Asterias rubens*, *radiis sex*.

Hab. Arctic Ocean.

Donor, Alexander Fisher, Esq. Surg. R.N.

99 c. *Asterias*, *radiis septem*, *longitudinaliter costatis*, *costis verrucosis*.

A large species.

Hab. Arctic Ocean. Northern Expedition, 1820.

Donor, Alexander Fisher, Esq. Surg. R.N.

100. *Asterias lævigata*, *Lam. Linn.*

Fig. Grew, *Mus. tab. viii. fig. 1, 2.* Seba, *Mus. iii. tab. vi. fig. 13, 14.*

Hab. Indian Ocean. The specimen is from the coast of Sumatra.

(*Echinidæ. Sea Eggs, or Sea Urchins.*)

100 A. Numerous small *Fibulariæ* (*Fib. ovulum*, *Lam.*) found in the stomach of a Haddock caught at Hastings, Sussex, 1809.

Donor, W. Clift, Esq.

100 B. *Spatangus purpureus*, *Lam. Echinus purpureus*, *Linn.*

Fig. Müller, *Zool. Dan. tab. vi. Encycl. Méth. pl. 157. fig. 1—4.*

Hab. Northern Ocean.

101 J. B. *Echinus esculentus*? *Lam. Linn.*

Depressed, with green spines.

Hab. Society Isles.

102 J. B. *Echinus*.

Same species as the preceding, but of larger size.

Hab. Society Isles.

103 J. B. *Echinus*.

A small species, depressed and concave at its superior disk.

Hab. Society Isles.

- 103 A. *Echinus miliaris*, *Lam.*
Fig. Seba, Mus. iii. tab. x. fig. 4. a, b.
Hab. Northern Ocean.
Donor, Lieut. Franklin, R.N. 1818.
- 103 B. *Echinus miliaris.*
Hab. Northern Ocean.
Donor, Lieut. Franklin, R.N. 1818.
- 103 C. *Echinus miliaris. var. spinis viridibus.*
Hab. Northern Ocean.
Donor, Captain Buchan, R.N.
- 103 D. *Echinus lucunter*, *Lam. Linn.*
Fig. Seba, Mus. iii. tab. x. fig. 16—18. but without the spines: they are perfect in the specimen.
Hab. ———
- 103 E. *Echinus.*
 A small species, with depressed clavate spines.
Hab. Island of Bonin.
Donor, G. Tradescant Lay, Esq.
- 104 J. B. *Echinus mammillatus*, *Lam.*
Fig. Seba, Mus. iii. tab. xiii. fig. 1, 2.
Hab. Society Isles.
 Four specimens without the spines.
- 105 J. B. *Echinus mammillatus.*
 A beautiful and perfect specimen.
Hab. Society Isles.
106. *Echinus mammillatus.*
 A remarkably fine and perfect specimen from Sumatra.
107. Spines of *Echinus trigonarius?* *Lam.* *Cidaris mammillata, var. 4.*
Leske ap. Klein, p. 124.
Hab. ———
- 108 J. B. *Echinus mammillatus.*
 Some of the dorsal spines are of the same trihedral form as those exhibited in the preceding specimen.

108 A. *Cidarites metularia*, *Lam.**Fig.* Seba, *Mus.* iii. *tab.* xiii. *fig.* 10.*Hab.* Abyssinia.*Donor*, H. Salt, Esq.(*Fistulidæ.*)109 J. B. *Fistularia tubulosa*, *Lam.* *Holothuria tremula*, *Linn.**Fig.* Solander & Ellis, *pl.* 8. *fig.* 4, 5.*Hab.* Society Isles.110 J. B. *Fistularia tubulosa*.*Hab.* Society Isles.111. *Fistularia tubulosa*?

A small species, of a light colour; the small tubuli are very obvious along the ventral aspect of the body.

Hab. ———112. *Fistularia*.

Ten inches in length, three in breadth; flattened on the ventral or inferior aspect, convex above, and studded there and at the sides with round varioloid spots, which are dark-coloured at the margin, and have each a small hole at the centre. Qu. *Fistularia maxima*? *Forsk. Ægypt. Descript. Animal.* p. 121. t. xxxviii. B. b. It differs however from the figure and description, in the absence of papillæ, being comparatively smooth; and in the larger and less frequent maculæ.

113. *Sipunculus nudus*, *Linn.*?

Eight inches in length, and one inch in diameter at the anterior part of the body; but becoming narrower posteriorly, and then a little enlarging into an obtuse extremity. The proboscis appears to have been dissected, and in part removed, to show the retractile muscles: the integument is of a light grey colour and iridescent; it is impressed with numerous transverse lines decussating equidistant longitudinal ridges; the anus is situated about one inch and a half from the root of the proboscis, it is papillary and surrounded by radiating lines;—a bristle is inserted into this orifice.

Fig. Bohadsch, *Anim. Marin.* *tab.* vii. *fig.* 6, 7.

Hab. sp. Bay of Naples; there is no record of the *habitat* of the specimen.

- 113 A. *Sipunculus phalloides*, *De Blainville, Dict. des Sciences Nat.* xlix. p. 311. *Lumbricus phalloides*, *Pallas, Spicil. Zool.* fasc. x. p. 12. tab. 1. f. 8. 8*.

Hab. Shores of the West India Islands.

Donor, Edward Stanley, Esq. F.R.S.

In a dissected specimen of this genus in the Gallery No. 605, the intestines may be seen containing calcareous fragments of Zoophytes, which may also be observed in the intestines of dissected specimens of the allied genera *Holothuria* and *Fistularia*. But it is more probable that the animal part of the corals and madrepores is assimilated, than that nutrition is derived from the earthy basis.—“Unde denuo apparet meram terram huic quoque Mollusco, uti multis aliis, pro nutrimento esse.” *Pallas*, ut supra, p. 15.

- 113 B. *Sipunculus*.

This remarkable specimen is ten inches in length, and about one inch in diameter, of a dark lurid colour, reflecting iridescent tints. It is suspended with the mouth downwards, and the proboscis is retracted.

(*Specimina sedis incertæ.*)

114. The Animal figured but not described in Ellis's *Zoophytes*, pl. 8. fig. 6. “A sea animal found near the islands of Grenada.”

Its proboscis is long and narrow, and has a number of subcorneous striæ at its extremity. Two small tubes (oviducts?) project from an orifice near the anterior extremity (the anus?). The integument is subcoriaceous, of a greyish-white colour, and beset with numerous minute brown tubercles, especially at the extremities of the body.

In the MS. Catalogue of Dr. Shaw it stands as “*Physa Nebulosa*, *Solander*,” but without reference to any work in which such genus is described. It approximates closely to the genus *Sipunculus*, and is probably the same with *Sipunculus tuberculatus*, *De Blainville, Dict. des Sciences Nat.* xlix. p. 313.

- 114 A. *Mammaria*, *Müller*.

A specimen of this genus, which does not accord with the description of any of the three species in Gmelin, *Systema Naturæ*, vi. p. 3135. It is

of a globular form, three-fourths of an inch in diameter, and has a rough dirty exterior. Lamarck places this genus in his class Tunicata, but without any deductions from anatomical structure; he merely copies the descriptions and references of Gmelin.

Hab. Arctic Seas.

Donor, Lieutenant Franklin, R.N. 1818.

Type MOLLUSCA ^a.

Class TUNICATA. (Ascidies, *Savigny*, *Animaux sans Vertèbres*.)

(*Ascididæ*, MacLeay. Simple and fixed, having their orifices internally irregular.)

115. *Ascidia intestinalis*, *Lam. Linn.*

Fig. Müller, *Zool. Dan. tab. lv. Ascidia canina.*

Hab. European seas.

This specimen agrees with fig. 1, 2, 3, *juniozem vel diversam speciem*. Bristles are passed into the branchial and anal orifices.

116. *Ascidia intestinalis*. Sertulariæ and fragments of shells adhering to the outer tunic.

117. *Ascidia intestinalis*, with bristles passed into the cavity of the outer cloak, by both apertures.

118. The outer tunic of an *Ascidia* divided transversely, probably *Ascidia ampulla*, *Lam.*

Vide *Encycl. Méth. pl. 63. fig. 1, 2, 3.*

119 J. B. *Boltenia reniformis*, *MacLeay, Linn. Trans. xiv. p. 536. No. 3. Ascidia globifera, Captain Sabine, Suppl. App. to Parry's Voyage, p. ccxxiv.*

Fig. *Linn. Trans. xiv. pl. 18.*

Hab. The specimen was collected by Sir Joseph Banks in his voyage round the world with Captain Cook;—probably the north-west coast of America.

^a Nervous system ganglionic, with the ganglions dispersed irregularly but connected by nervous threads.

- 119 A. A finer specimen of *Boltenia reniformis*, from Winter Harbour. Northern Expedition, 1820.

Donor, Alexander Fisher, Esq. Surg. R.N.

(*Botryllidæ*, MacLeay. Compound and fixed, having their orifices externally regular.)

- 119 B. *Polyclinum constellatum*? *Sav.*

Fig. Mém. sur les Animaux sans Vertèbres, *pl.* 4. *fig.* 1. *p.* 189.

Hab. St. Lucia.

Donor, Rev. John Guilding, St. Lucia, 1814.

In this specimen the mass of aggregated animals forms a sphere of about three inches in diameter : they are sunk into a semicartilaginous substance of about half an inch in thickness ; and where a section has been made, the cellules occupied by the different parts of each animal may be distinctly seen. (*Vide Sav. ut supra*, *p.* 9.)

(*Lucidæ*, MacLeay. Compound and floating, having their branchial cavity open at the two extremities.)

- 119 C. *Pyrosoma atlanticum*, *Péron*, *Annal. du Muséum*, iv. *p.* 437.

Fig. *Annal. du Mus.* iv. *pl.* 72.

Hab. The Atlantic. It is remarkable for the beauty and variety of the colours that are reflected when the animal is irritated ; in the figure quoted the azure tint is given. For the structure of this singular genus see *Sav. Anim. sans Vertèbr.* *p.* 51. *et seq.*

(*Biphoridæ*, MacLeay. Aggregated in their young state, and floating.)

- 119 D. *Salpa* —, *Salpa confederata*? *Forskahl.*

Dagyza, Banks. The Chain *Dagyza*.

Fig. Home, *Comp. Anat.* ii. *tab.* lxxiii. *fig.* 1.

Removed from the Gallery (No. 3222, Old Catal.).

Hab. "In March 1801, these *Dagysæ* were observed in the sea near Cape Finisterra ; they were very near the surface, and formed chains of several yards in length. From being subject to the undulations of

the waves, they sometimes appeared to have a serpentine motion. When raised up out of the water they readily separated. The bodies composing them were all exactly similar, and lay parallel to each other; they exhibited a remarkable synchronous contractile movement, repeated about fifteen times in a minute; the action of contraction being rapid, that of relaxation slow and gradual. Their substance was a clear transparent jelly, inclosed in a very fine capsule: at one extremity was an opaque central spot or globule, of a dull red colour, from which lines appeared to radiate towards the circumference of the body." MS. note by John Howship, Esq.

120. *Salpa zonaria*, *Lam.* *Holothuria zonaria*, *Gmel.*
Fig. Pallas, *Spicil. Zool. tab. 1. fig. 17. a. b. c.* *Encycl. Méth. pl. 75. fig. 8—10.*
121. *Salpa fusiformis* ? *Lam.*
Fig. Cuvier, *Ann. du Mus. iv. pl. 68. fig. 2.*
Hab. Atlantic Ocean.
122. *Salpa scutigera*, *Cuv. Lam.*
Fig. *Annales du Mus. iv. pl. 68. fig. 4, 5.*
Hab. Atlantic Ocean.
123. *Salpa cristata*, *Cuv. Lam.*
Fig. *Annales du Mus. pl. 68. fig. 1, 2.*
Hab. Atlantic Ocean.
 The oblique intestines and transverse muscular bands are well seen in this specimen.
124. *Salpa Tilesii*, *Cuv.*
Fig. *Annales du Mus. iv. pl. 68. fig. 3—6.*
Hab. ———
- 124 A. A fine specimen of *Salpa Tilesii*.
 The cartilaginous protuberance covers the stomach and liver. Upon the protuberance there are many cartilaginous spines; others may be observed scattered over different parts of the outer sac.
125. *Salpa maxima* ? *Lam. Gmel.*
Fig. Shaw's *Nat. Miscell. vii. pl. 232.*
Hab. Mediterranean and Atlantic Ocean.

126. The exterior transparent sac of *Salpa maxima*, of a consistence between cartilage and jelly.

127. *Salpa maxima*.

The outer tunic is laid open, and a bristle passed into the stomach.

128. *Salpa maxima*.

It is laid open, and the stomach, oblique intestine, and transverse muscular bands are more completely exposed.

Class ACEPHALA. (Acephales testacés, *Cuvier*.)

129. *Teredo navalis*, *Lam. Linn.* The Ship-borer.

Fig. Home, *Comp. Anat.* iv. *pl.* 43.

Hab. sp. In wood immersed in sea-water.

130. *Teredo navalis*, with the valves, but stripped of the shelly tube.

131. Two specimens of *Teredo navalis* :

One of these is removed from its tube and laid open in several places ; the other has a portion of the calcareous tube attached to one extremity.

132. A portion of timber injured by the *Teredo navalis* :

The soft parts and valve are seen projecting from the shelly tube, which is laid-open to show its course through the wood.

132 A. *Pholas dactylus*, *Lam. Linn.*

Fig. Pennant, *Brit. Zool.* iv. *pl.* 39. *fig.* 10.

Hab. sp. European seas, in rocks.

Donor, Sir Anthony Carlisle, F.R.S. F.L.S. &c. 1818.

132 B. *Pholas dactylus*.

The valves divaricated to show the soft parts *in situ*.

Donor, Mrs. Robinson, 1810.

132 c. *Pholas dactylus*.

One of the valves removed, giving a side view of the animal.

Donor, Mrs. Robinson, 1810.

132 D. *Pholas crispata*, *Lam. Linn.*

Fig. Pennant, *Brit. Zool.* *pl.* 40. *fig.* 12?

Hab. sp. European seas. The specimen is from a Septarium.

Donor, Sir Everard Home, Bart.

132 E. *Solen strigilatus*, *Lam. Linn.*

Fig. Poli, *Testacea utriusque Sicil. i. tab. xii.*

Hab. Mediterranean, and Atlantic Ocean.

Donor, William John Broderip, Esq. F.R.S. &c. Sec. G.S. 1828.

132 F. A small bivalve, of the genus *Pectunculus*, *Lam.*

Hab. Arctic seas; attached by its byssus to a pebble.

Donor, Captain Buchan, R.N.

133. *Modiola discors*, *Lam.* *Mytilus discors*, *Gmel.*

Fig. Chemnitz, *Conch. viii. p. 195. pl. 86. fig. 768.*

Hab. Australian Ocean. The specimens are imbedded in a mass of byssus.

133 A. *Modiola trapezina*, *Lam.*

Hab. These specimens were taken off Cape Horn, by the Donor, Mr. S. Stutchbury. Lamarck appears to have been unacquainted with the

Habitat of this species.

134. Soft parts of one of the *Conchifera*, probably of an *Anodon*.

134 A. *Mytilus polymorphus*, *Lam.* adhering to *Anodon anatinus*.

A bristle is passed into the central aperture of the mantle, which, except at this part, is closed all round: it has two tubes; the foot is very small.

Hab. Dredged up in the Commercial Docks, London, where the species has become naturalized, having been originally transported by merchant vessels from the Continental rivers.

Donor, Mr. Samuel Stutchbury.

135. *Mytilus edulis*, var. β , *Linn.* *Mytilus pellucidus*, *Maton & Rackett.* Common Muscle.

Fig. Lister, *Conch. pl. 362. fig. 200.*

Hab. European seas.

135 A. *Unio margaritiferus*, *Lam.* *Mya margaritifera*, *Linn.* Pearl Muscle.

Fig. Da Costa, *Brit. Conch. pl. 25. fig. 3.†* Pennant, *Brit. Zool. iv. p. 80. pl. 43. fig. 18.*

Hab. The rivers in the mountainous parts of Great Britain.

The present specimen, with many others, was brought from the Loch of Kenmure Castle in Dumfries-shire, where they abound. "The poor

people, when the Loch is low, rake out the muscles, and select those with deformed exteriors, as most likely to contain pearls." The pearl in this example is imbedded in the foot of the animal; in others it was found unattached within the mantle. See Pennant, *ut supra*, p. 80. 81; and Dr. Fleming's Philosophy of Zoology, ii. p. 503.

Donor, Anthony White, Esq. 1828.

- 135 B. *Meleagrina margaritifera*, *Lam.* *Mytilus margaritiferus*, *Linn. Gmel.* Pearl Oyster; the black variety.

Hab. Tropical seas.

In the present specimen the pearl is imbedded in the membrane of the branchiæ. It was taken at Hao, the Bow-Island of Cook, South Pacific, by the

Donor, Mr. Samuel Stutchbury.

136. *Plicatulæ* (*P. depressa*? *Lam.*), intermixed with *Zoanthus Ellisii*.

137. *Lima squamosa*, *Lam.* *Ostrea lima*, *Gmel.*

Fig. Chem. Conch. vii. *tab.* 68. *fig.* 651.

Hab. American seas.

- 137 A. *Pecten Franklinii*, *Clift, MS.*

Hab. Arctic seas.

Donor, Lieutenant Franklin, 1818.

- 137 B. *Terebratula dorsalis*, *Blainville, Malacolog. i. p.* 510. The Lamp-cockle.

Fig. Blainv. Malacol. ii. *pl.* 51. *fig.* 1. 1a.

Hab. ———

Two specimens, one attached by its byssus to the other; the upper one was examined by De Blainville in 1827, but the soft parts were in too imperfect a state to afford any satisfactory result.

Donor, Sir Everard Home, Bart. V.P.R.S.

Class GASTEROPODA.

138. *Chiton marmoratus*, *Linn. Gmel.*

With an octovalve, canaliculate, and diagonally striped shell; the sides of the body squamulose.

Fig. Chemn. *Chiton*, *pl.* 1. *fig.* 5.

Hab. American seas.

139 J. B. *Chiton*.

With an octovalve green shell, the lateral areae impressed with very delicate radiating lines; the sides of the body squamulose. *Chiton glaucus*, *Gray*, *Spicil. Zool. p.* 5 ?

Hab. Australian seas.

140 J. B. *Chiton*.

With a grey octovalve shell, impressed with wavy longitudinal lines, the last valve pyramidal, the sides of the body smooth.

Hab. Australian seas.

141 J. B. *Chiton*.

Shell octovalve, with a granulate margin, and a longitudinal central brown stripe. *Chiton piceus*, *Linn. Gmel.* ?

Hab. Australian seas.

142 J. B. *Chiton*.

With an octovalve, subcarinated, scabrous shell; the sides of the body provided with short black aciculi, projecting from foramina. *Chiton rari-pilosus*, *De Blainv. Dict. des Sciences Nat.* xxxix. *p.* 547.

Hab. Australian seas.

143 J. B. Small specimens of *Chiton*.

With a narrow octovalve shell, on each side of which, nine bundles of pale blue shining hairs project from as many foramina.

Fig. *Encycl. Méth. pl.* 163. *fig.* 13. *Pennant, Brit. Zool. iv. pl.* 36. *fig.* 1. *p.* 71. *Chiton crinitus* ?

Hab. Sea near Aberdeen: *Pennant*.

144. *Chiton crinitus*, seu *fascicularis*.

With a narrow octovalve shell, and a series of foramina on either side, which may have contained aciculi.

145. This specimen is of a genus distinct from *Chiton* and *Chitonellus*, *Lam.*

Its octovalve shell is completely covered by the skin. A small longitudinal slit corresponds to a crista in the middle of the convexity of each valve,

and on either side of these there is a series of elevated puncta. The cuticle has become detached. *Chiton porosus*, *Burrow, Elem. of Conch.*?

145 A. *Dentalium entale*, *Linn.*

Fig. D'Argen, *Conch. tab. iii. fig. κκ.*

Hab. Many specimens of the tubes and portions of the animals found in them*, from Hartlepool, Yorkshire.

Donor, The Very Rev. George Markham, Dean of York.

146. *Patella vulgata*, *Linn.* The Common Limpet.

Fig. Pennant, *Brit. Zool. iv. t. 89. fig. 145, 146.*

Hab. Coasts of Europe.

Fucus rubens is attached to the shell.

147. *Patella vulgata*.

The soft parts, without the shell.

148. *Patella vulgata*.

The branchial membrane is reflected, and the commencement of the alimentary canal exposed.

148 A. Two specimens of *Patella*, with masses of ova (?) attached to the soft parts.

* Respecting these animals, Savigny gives the following note, in his *Système des Annelides*, p. 98. "Mon sentiment, à l'égard de ces tubes calcaires, est maintenant appuyé par un fait positif. J'ai sous les yeux l'animal du *Dentalium Entalis*, que M. Leach vient de m'envoyer, et je ne lui trouve pas à l'extérieur le moindre vestige d'articulations: il n'a certainement ni pieds ni soies. C'est un animal très-muscleux, de forme conique comme sa coquille, très-lisse et très-uni dans son contour, terminé postérieurement par une queue distincte, roulée en demi-cornet, au fond de laquelle est l'anus: la grosse extrémité du corps est tronquée, avec une ouverture voûtée assez semblable à la bouche d'un Trochus, de laquelle sort un panache conique produit par l'entrelacement d'une innombrable quantité de petits tentacules filiformes, très-longs, terminés tous en massue. Voilà des points que je peux donner pour certains. Je soupçonne en outre que l'animal est pourvu d'une trompe, et que dans son développement complet, il déploie un luxe de tentacules beaucoup plus grand encore que celui que l'état de contraction laisse d'abord supposer. Le tube intestinal, qui descend entre deux énormes colonnes de muscles, me paroît aller droit à l'anus et n'être accompagné d'aucune viscère remarquable. Ces observations faites à la hâte suffisent néanmoins pour prouver que la Dentale n'est point une Annelide, et qu'elle pourrait même être exclue de la division des animaux articulés."

In accordance with this opinion, Blainville has arranged the genus *Dentalium* among the Mollusca in his Sub-class Paracephalophora Hermaphrodita, Order Cirrhobranchiata. See also on this subject the Zoological Journal, iv. No. xiv. p. 175.

Hab. Caught on the Sussex coast.
Donor, Mrs. Robinson, Sept. 1829.

149. *Haliotis tuberculata*, *Lam.*

Fig. Lister, *Conch. pl.* 611. *fig.* 2.

Hab. European and Atlantic Oceans.

150. A small *Murex*, with several ovaria adhering.

They are of a somewhat triangular form, and rather larger than those called by Ellis *Hydræ triticeæ*.

151. *Buccinum undatum*, *Linn. Gmel. Lam.*

Fig. Pennant, *Brit. Zool. iv. pl.* 73. *fig.* 90.

Hab. European seas.

152. *Buccinum undatum*, with its inhabitant and operculum.

153. *Cypræa tigris*, *Linn. Gmel. Lam.*

Fig. Lister, *Conch. pl.* 682. *fig.* 29.

Hab. Indian Ocean.

The shell contains the soft parts; those of another specimen are also suspended in the same glass.

153 A. Three young specimens of *Cypræa*.

To show the progress of the formation of the shell before the adult state is acquired.

Donor, Henry Salt, Esq.

153 B. *Janthina fragilis*, *Lam.* *Helix janthina*, *Linn. Gmel.*

Fig. Lister, *Conch. pl.* 572. *fig.* 24.

Hab. The specimen was taken in the Gulf of Guinea; when recent, the shell had many rows of ova attached to its outer surface; these are figured in the *Phil. Trans.* 1817. *pl.* xiii. *fig.* 1—6. *p.* 300.

The anatomy of this species is given by Cuvier in the 11th volume of the *Annales du Muséum*, *p.* 121. *pl.* 11.

Donor, Sir Everard Home, Bart. V.P.R.S.

154. *Janthina globosa*, *Swainson.*

With the soft parts, and the remains of the float.

155 J. B. *Janthina globosa.*

The spire of the shell removed, to show the soft parts.

156. *Trochus Niloticus*, *Linn. Gmel. Lam.*

Fig. Lister, *Conch. pl.* 617. *fig.* 3.

Hab. Indian Ocean.

The soft parts are suspended.

157. *Turbo Pica*, *Linn. Lam.*

Fig. Lister, *Conch. pl.* 640. *fig.* 30.

Hab. Equatorial Atlantic Ocean.

The shell is laid open to show the soft parts; the mouth is closed by the operculum.

158. Part of a small *Turbo Pica*.

Showing the attachment of the operculum to the soft parts.

- 158 A. *Bullæa aperta*, *Lam. Bulla aperta*, *Linn. Gmel.*

Fig. Müller, *Zool. Dan. iii. tab. ci. fig.* 1—5.

Hab. European seas: the specimens are from the coast of Weymouth, Dorsetshire.

The upper specimen is suspended by the folds of the mantle which cover the shell; in the lower one the calcareous parts of the gizzard are exposed. The anatomy of this species is detailed by Cuvier in the 1st volume of the *Annales du Muséum*, *p.* 156. *pl.* 12. *fig.* 1—6.

Donor, Sir Everard Home, Bart. V.P.R.S.

- 158 B. *Onchidium Typhæ*, *Buchanan, Linn. Trans. v. p.* 132.

Hab. ———

Donor, Sir Everard Home, Bart. V.P.R.S.

- 158 c. *Laplysia camelus*, *Cuv.*

Fig. *Annales du Mus. ii. pl.* 51. (*Laplysia, pl.* 1.) *fig.* 1.

Hab. ———

Mus. Leverianum.

- 158 D. *Laplysia alba*, *Cuv.*

Fig. *Annales du Mus. ii. pl.* 51. (*Laplysia, pl.* 1.) *fig.* 6.

Donor, Sir Everard Home, Bart. V.P.R.S.

159. *Tritonia coronata*, *Lam. Doris coronata*, *Gmel.*

Fig. Bommé, *Mém. de Fless. i. pl.* 3.

Hab. Northern seas.

- 159 A. *Scyllæa pelagica*, *Lam. Linn.*

Fig. Annales du Mus. vii. *pl.* 61. *fig.* 1. 3. 4.

Hab. Northern Ocean.

Donor, Lieutenant Franklin, R.N. 1818.

Class PTEROPODA.

- 159 B. *Limacina helicalis*, *Lam.* *Argonauta arctica*, *Gmel.*

Fig. ———

Hab. Arctic seas, in great abundance.

160. *Clio borealis*, *Lam. Gmel.* Whale's-food.

Fig. Ellis's Zoophytes, *pl.* 15. *fig.* 9, 10. Cuvier, Hist. des Mollusques, *pl.* xvii. Blainville, Malacol. *pl.* 46. *fig.* 1.

Hab. Arctic seas, serving, like the preceding species, as food for the Whalebone Whale.

161. A single specimen of *Clio borealis*, suspended.

- 161 A. Very fine specimens of *Clio borealis*.

Hab. Arctic Ocean.

Donor, Captain Ross, R.N. 1818.

Class CEPHALOPODA.

162. *Octopus vulgaris*, *Lam.* *Sepia octopus*, *Gmel.* Πολύπους antiquorum. *La Poulpe*.

Fig. Seba, Mus. iii. *tab.* ii. *fig.* 1, 4.

Hab. European seas.

Two small but perfect specimens.

163. A large specimen of *Octopus vulgaris*.

In place of a cretaceous plate, as in *Sepia officinalis*, we find in this genus only two very small elongated horny bodies.

164. *Octopus vulgaris*.

This is the species selected by Cuvier as the type of the structure of the Cephalopoda: see Histoire des Mollusques, *p.* 2, &c.

- 164 A. *Octopus ventricosus*, *Grant, Edinb. Philos. Journal*, xvi. *p.* 309.

Eledone, *Leach, Zool. Miscell.* iii. *p.* 137.

Fig. Pennant, Brit. Zool. iv. *pl.* 28.

Hab. This beautiful specimen was taken at St. Just, Cornwall, January 1822: its arms are compressed, and connected at their roots by a thick web; in the contraction preceding death they have become spirally convoluted in a very elegant manner, the three upper or dorsal pairs describing four gyrations, the ventral pair five: the surface of the integument is slightly wrinkled and granulate; it is of a mottled lilac or livid colour behind, but is smooth and approaches to white on the opposite aspect, and on the arms.

164 B. *Ocythœ Cranchii*, *Leach, Phil. Trans.* 1817. *p.* 295. *pl.* 12.

Fig. De Blainville, *Malacologie*, ii. *pl.* 1 bis. *f.* 2.

Hab. The specimen was taken in the Gulf of Guinea.

"They had the power of completely withdrawing within the shell, and of leaving it entirely. One individual quitted its shell, and lived several hours, swimming about, and showing no inclination to return into it; and others left the shells as he was taking them up in the net. They changed colour like other animals of the class *Cephalopoda*; when at rest, the colour was pale flesh-coloured, more or less speckled with purplish; the under parts of the arms were bluish-grey; the suckers whitish."

—Dr. Leach, *ut supra*, *p.* 294.

Donor, Sir Everard Home.

164 c. *Ocythœ Antiquorum*, *Leach. Argonauta Argo*, *Linn. Lam.*

Fig. De Blainville, *Malacol.* *pl.* 1. *fig.* 1. a. b. *pl.* 1 bis. *fig.* 1. *pl.* 1 ter. *Zoological Journal*, iv. *pl.* 3.

Hab. The specimen was taken in the Mediterranean, and occupies the same position in the shell as it did when it was captured. The animal rests on a mass of ova.

Donor, William John Broderip, Esq. F.R.S. &c. V.P.G.S.

165. *Loligo vulgaris*, *Lam. Sepia Loligo*, *Linn. Le Calmar.*

Fig. Pennant, *Brit. Zool.* iv.

Hab. European seas.

A short arm and the extremity of a long one, to show the acetabula lined with horn and attached by peduncles to these parts.

166. *Loligo sagittata*, *Lam. Var. a. corpore oblongo, crassissimo; brachiis pedunculatis prælongis.*

Fig. Seba, Mus. iii. tab. iv. *fig.* 1. 2.

Hab. European and American Oceans.

The acetabula of the long arms are not confined to the enlarged extremities, but extend to within a short distance of their commencement.

- 166 A. *Loligo sagittata*, Lam. Var. b. *corpore gracili ; brachiis pedunculatis perbrevibus.*

Fig. Encycl. Méth. pl. 77. *fig.* 1. 2.

Hab. Mediterranean Sea.

Donor, B. Clifton Henderson, M.D.

- 166 B. *Loligo sepiola*, Lam. *Sepia sepiola*, Linn.

Fig. Encycl. Méth. pl. 77. *fig.* 3.

Hab. Mediterranean Sea.

Donor, Mrs. Robinson.

- 166 C. *Loligo sepiola*, Lam.

Presented by Dr. Leach as his *Sepiola Rondeletii*.

- 166 D. *Loligo Banksii*, Leach, Zool. Misc. iii. p. 141.

Fig. Leach, App. No. ii. Tuckey's Narrative of the Congo Expedition, p. 401. De Blainville, Malacol. ii. pl. 3. *fig.* 1.

Hab. "The colour of this, when alive, is pale flesh. The body is yellowish behind, sprinkled irregularly with blackish spots tinted with purple. The external aspect of the arms is freckled with purplish. The under parts of the fins without spots. One specimen was taken in the Gulph of Guinea."—Leach, App. No. iv. p. 411. Tuckey's Narrative of the Congo Expedition.

The corneous parts of the acetabula at the extremities of the long arms are prolonged into the form of hooks or claws. In the Gallery are preserved parts of the arms of a large but unknown cephalopod, in which the horny parts of the acetabula are in the form of claws, hollow at their base, and supported on soft conical processes. They are imbedded as far as the hooked part in fleshy tubercles about the size of peas, which are arranged in a double alternate series, and attached to the arm by very short and narrow pedicles.—See Nos. 63, 1436, 1437.

Mus. Brookes. See Catal. p. 100. lot 63 Y.

167. *Sepia officinalis*, Lam. Linn. Officinal Cuttle-fish. *La Sèche.*

Fig. Seba, Mus. iii. f. 1—4.

Hab. Mediterranean and European Seas.
The species from which the cuttle-bone is obtained.

Type ACRITA ^a.

Class ENTOZOA, *Rudolphi* ^b.

Ordo I. NEMATOIDEA (*νημα filum, εἶδος forma*).

Vermes teretes. Rundwürmer. Round worms.

Corpus teres elasticum. Tractus intestinalis hinc ore, illinc ano terminatus. Alia individua mascula, alia feminea.

Ordo II. ACANTHOCEPHALA (*ακανθα spina, κεφαλη caput*).

Vermes uncinati. Hackenwürmer. Hooked worms.

Corpus teretiusculum, utriculare, elasticum. Proboscis seriatim uncinata retractilis. Individua alia mascula, alia feminea.

^a But in genus *Strongylus* the nervous system exhibits traces of the Annulose type: *vide* Otto, in *Der Gessellsch. Naturforsch. Freunde Magazin*, vii. Berlin, 1816. p. 225. tab. v. fig. 1.; and *Entoz. Synopsis*, p. 575.

^b The knowledge of the Entozoa or intestinal worms as a Class is of very late date. In the twelfth edition of the *Systema Naturæ*, 1767–8, eleven species only are enumerated:—*Gordius medinensis*, *Ascaris vermicularis*, and *lumbricoides*, with *Fasciola hepatica*, *intestinalis*, and *barbata*, are placed among the *Intestina*; whilst *Hydra hydatula*, *Tænia Solium*, *vulgaris*, *lata*, and *canina*, are ranged with the *Zoophyta*.

Bloch's *Treatise on the Generation of Intestinal Worms*, (*Abhandlung von der Erzeugung der Eingeweidewürmer*, 1782,) succeeded by the more extensive work of Goeze, (*Versuch einer Naturgeschichte der Eingeweidewürmer thierischer Körper*, 1782,) added largely to the number of the described species; and some accurate divisions were also founded. Gmelin, availing himself of the labours of these authors, and collecting also the species described by Redi, Pallas, O. F. Müller, and Werner, was enabled to give two hundred and ninety-nine species in the thirteenth edition of Linné's *Systema Naturæ*; but of this labour Rudolphi remarks: "Gmelinus auctorum plurimorum observationes congescit, sed tam judicio et experientia quam sollertia destitutus, plurima miscuit et implicuit, ut in synonymis ab eodem perperam allegatis, extricandis, C. A. Rudolphi et Zederus multum desudaverint."

In 1801 Rudolphi's first *Treatise on the Intestinal Worms* appeared in Weidemann's *Archiv für Zoologie und Zootomie*; but previous to this he had made them the subject of two Theses: in all these works new species are described, and emendations of classification proposed. In 1808–10 his great work, entitled "*Entozoorum seu Vermium Intestinalium Historia Naturalis*" appeared; in which, after dividing the *Vermes* of Linnæus into four classes, viz. *Mollusca*, *Gymnodela*, *Entozoa*, *Phytozoa*,

Ordo III. TREMATODA (*τρεμμα foramen*, -ωδης -osus; *foraminosus*.)

Vermes suctoria. Saugwürmer. Sucking worms.

Corpus depressum vel teretiusculum, molle. Pori suctorii.

Omnia individua androgyna.

Ordo IV. CESTOIDEA (*κεσος cingulum*, ειδος *forma*).

Vermes tæniæformes. Bandwürmer. Tape-worms.

Corpus elongatum, depressum, molle, continuum vel articulatatum.

Caput paucissimorum simpliciter labiatum, reliquorum bothriis vel osculis suctoriis duobus aut quatuor instructum.

Omnia individua androgyna.

Ordo V. CYSTICA (*κυστις vesica*).

Vermes vesiculares. Blasenwürmer. Cyst-worms.

Corpus depressum vel teretiusculum, apice posteriore in vesiculam abiens entozois singulis solitariam vel pluribus communem. Caput bothriis (2 vel 4) aut osculis suctoriis (4) uncinulorum corona, vel proboscibus quatuor uncinatis instructum. Organa sexus in nullis hactenus conspicua.

he further characterizes the third class, thus: "Entozoa ergo classem, aut si mavis ordinem sistunt peculiarem, *animalcula* continentem, *aliis in animalibus obvia, oculis nudis conspicua, nervis carentia, partibus internis dissimilibus* (discernilibus) *instructa.*" Of the class of animals thus characterized, upwards of eleven hundred species are given in the Entozoorum Synopsis, 1819.

Splendid figures illustrating all the genera in this work have been published by Bremser, (*Icones Helminthum*, 1824,) which leave little to be desired in this respect by the student of Helminthology.

The anatomical structure of this class has been investigated by Tyson (*Phil. Trans.* xiii. 1683),—by Hunter, see in the Gallery of the Collection, Nos. 474, 475, 476, 477, 478, 479, 480, 257, 258, 259, 267, 268, 269, 321, 587, 588, 589, (859, 860, 861, 862, 863, 864, Carlisle.) 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2757, 2758, 2759, 2760,—by Sir A. Carlisle (*Linn. Trans.* ii.),—by Cuvier, and the systematic authors previously quoted; and more recently by Jules Cloquet (*Anat. des Vers Intest. Ascaride Lombricoide et Echinorhynque Geant*, 1824).

From the intimate connection subsisting between the study of the Entozoa and the Medical Sciences, more especially Pathology, it has been thought advisable to subjoin the characters of the orders and genera; and there is also added a synoptical table of the specimens contained in this part of the Catalogue.—R. O.

ORDO I. NEMATOIDEA.

Genus I. FILARIA.

Corpus teres, elasticum, subæquale, elongatum. Os orbiculare. Genitale masculum: spiculum simplex.

167 A. *Filaria medinensis*, Gmel. The Guinea worm.

Hab. In man, in the subcutaneous cellular texture, especially of the lower extremity; peculiar to tropical regions.

Fig. Williams, Observ. on the West Indies. Edinb. 1817. p. 57. tab. 1.

See Hunter on the Blood, 4to. 1794. p. 208.

This specimen, which is twenty-two inches in length, was extracted from the leg of a boy who was a patient in the London Hospital: from the protracted nature of the operation it is necessarily preserved in a dry state.

Donor, Sir William Blizard, F.R.S. &c. July 8th, 1809.

167 B. A fine specimen of *Filaria medinensis*.

Donor, Sir Everard Home; Bart. 1811. (No history.)

167 C. *Filaria gracilis*, Rud. The slender *Filaria*.

Hab. Was found, May 1829, imbedded and coiled up in a cyst of cellular membrane close by the trachea of a young rufous Oran Otang from India. (*Simia satyrus*, Linn. Cuv.)

Donor, Mr. Richard Owen.

167 D. *Filaria gracilis*.

Fig. Bremser, Icones Helminth. tab. i. f. 1—5.

Hab. These specimens were found in the cavity of the chest, between the pleura pulmonalis and costalis, and convoluted in the intervals of the lobes of the lungs of *Simia capucina*.

Two of the specimens, in length about ten inches, are suspended, the remainder are attached to the lung, which is much disorganized by scrofulous depositions.

Donor, Mr. R. Owen.

168. *Filaria papillosa*, Rud. Fil. Equi, Gmel.

Fig. Bremser, Icon. Helminth. tab. 1. fig. 8—11.

Hab. The species infests the horse; it may be found in the cavities of

the abdomen and chest, behind the peritoneum or pleura, in the aspera arteria, or in the cavity of the eye.

169. *Filaria papillosa*.

A portion of the lung of a horse; one of the bronchial tubes is laid open, and a number of this species of *Filaria* are exposed, coiled up and interwoven together.

- 169 A. The eye of a horse laid open, exposing a *Filaria papillosa*; [which had bred there and occasioned dropsy of the cavity, with absorption of the hyaloid membrane and retina. The choroid has become thick and tough, and slightly granular on its central aspect: on a close inspection it appears to be lined by a thin layer of cellular membrane. A partition of dense cellular membrane, separable into laminae, stretches across the cavity of the eye behind the lens; the *capsula propria* of which has also undergone morbid thickening and opacity. In the *Synopsis Entozoorum* a case is noticed by Rudolphi, of a *Filaria papillosa* in the right eye of a horse, where its lively motions were observed for some time: the sight was not wholly lost, but the cornea was covered with small opake spots, the lens and its capsule were destroyed, and the whole eye appeared to be filled with a nebulous humour.]

Donor, Prof. Coleman, 1826.

170. *Filaria Macropi majoris*. (*Sp. dub.*) *Filaria* of the Kangaroo.

Two specimens of this species, between four and five inches in length and a line in thickness, of a yellow colour, and so transparent as to permit two spiral vessels (oviducts?) and a straight tube (digestive canal?) to be plainly seen.

Hab. "Worms found alive within the capsular ligament of the knee-joint of the Kangaroo" written on the bottle.

171. *Filaria Apis terrestris*. (*Sp. dub.*) *Filaria* of the Humble-bee.

Hab. In the cavity of the abdomen of the humble-bee.

172. A Humble-bee laid open to show *Filariæ* in the abdominal cavity.

Mr. Hunter has the following note respecting this species; "Of the animal that breeds in the humble bee:—'In many I have found in their abdomen what I suspect to be of the kind, but of a particular kind, some of which are very small, only to be distinctly seen by a magnifying glass.'"

Genus II. TRICHOSOMA.

Corpus teres, elasticum, tenuissimum, retrorsum insensibili modo increscens. Os punctiforme. Genitale masculum: filum simplex vaginatum.

Genus III. TRICHOCEPHALUS.

Corpus teres, elasticum, parte antica capillari subito in crassiorem transeunte. Os orbiculare. Genitale masculum simplex vaginatum.

173. *Trichocephalus dispar*, Rud. *Trichocephalus Hominis*, Linn.

Hab. The cæcum of Man.

Fig. Goeze, Naturgeschichte der Eingeweidewürmer, t. vi. f. 1—5.

173 A. Many specimens of *Trichocephalus dispar*.

These were found in a living state by Joshua Brookes, Esq., upon and in the cæcum (of a human subject); which was "perforated as it were by a number of pinholes. A considerable portion of the internal coat of the intestine was eroded."

Mus. Brookes. *Vide* Catal. p. 105. lot 41.

174. *Trichocephalus depressiusculus?* Rud. *Trichocephalus Vulpis?* Gmel.

Fig. Bremser, Icon. Helminth. tab. 1. f. 18.

In the specimen, the capillary anterior part is broken off from the rest of the body.

Hab. The species may be found in the cæcum of *Canis familiaris* and *C. Vulpis*.

Genus IV. OXYURIS.

Corpus teres, elasticum, parte postica (feminæ) subulata. Os orbiculare. Penis vaginatus.

Genus V. CUCULLANUS.

Corpus teres, elasticum, postice attenuatum. Capitis ore orbiculari cucullo striato. Genitale masculum: spiculum duplex.

Genus VI. SPIROPTERA.

Corpus teres, elasticum, utrinque attenuatum. Os orbiculare. Penis inter alas caudæ spiraliter devolutæ laterales emergens.

174 A. Spiroptera Hominis, Rud.

Hab. The urinary bladder of Man.

Fig. Medico-Chirurgical Trans., ii. tab. 8.

In the same volume, p. 385, are given a description of the worms and an account of the case, by W. Lawrence, Esq.

“In Canis lupi Januarii d. 22, 1817. Berolini a me dissecti vesica urinaria entozoa reperi, glomere fere inextricabili convoluta, cinerascens, parti anteriore capillari tenuissima longissimaque sensim in partem crassiorem abeunte, apice caudali obtuse obiter incurvo.”—Rudolphi, Entoz. Synopsis, Mantissa 1. p. 222.

Donor, John Barnett, Esq., by Sir Everard Home, Bart. June 14, 1813.

Genus VII. PHYSALOPTERA.

Corpus teres, elasticum, utrinque attenuatum. Os orbiculare. Cauda maris deflexa, utrinque alata, vesicam inferam sistens. Penis tuberculo emissus.

Genus VIII. STRONGYLUS.

Corpus teres, elasticum, utrinque attenuatum. Os orbiculare vel angulatum. Apex caudæ masculæ terminatus bursâ penem emittente.

175. Strongylus armatus, Rud. Strongylus equinus, Gmel. Var. minor.

Fig. Bremser, Icones Helminth. tab. iii. fig. 10—15. *Vide* Hodgson, Diseases of Arteries and Veins, p. 569—575.

Hab. In aneurisms of the mesenteric arteries of the horse and ass. *Var. major*, in the large intestines of the same animals.

Two portions of the mesenteric artery of the horse, aneurismatic and diseased, are laid open; showing the heads of the Strongyli buried in flakes of effused lymph or coagulum.

176. Strongylus armatus.

An aneurismatic mesenteric artery of the ass laid open, and exhibiting the Strongyli mixed with coagula and lymph.

176 A. *Strongylus armatus*.

Portions of the mesenteric artery of a young ass, in an aneurismatic and diseased condition. The largest tumour is laid open and is filled with coagula, in which the Strongyli are imbedded.

Fig. Hodgson, Engravings intended to illustrate some of the Diseases of Arteries, 4to. *pl.* viii. *fig.* 2, 3.

Donor, Joseph Hodgson, Esq. 1812.

177. *Strongylus gigas*, *Rud.* *Ascaris renalis*, *Gmel.*

Hab. In the kidney (rarely in any other part,) of Man and other mammifera.

Fig. Rudolphi, Entozoorum Hist. Nat. i. *tab.* ii. *fig.* 1—4.

A specimen eighteen inches long.

177 A. *Strongylus gigas*.

A fine specimen, in length twenty inches, "found in the kidney of a patient of the late Thomas Sheldon, Esq."

Mus. Brookes. See *Catal.* p. 105. lot 52 *Æ*.

178. *Strongylus gigas*.

It is wreathed and imbedded in, and occupies nearly the whole of the kidney of some small quadruped.

178 A. *Strongylus gigas*.

From the kidney of a racoon (*Procyon lotor*). This specimen preserves its natural blood-colour, which is lost in the preceding by long maceration in spirit.

Donor, Dr. Richardson, 1822.

178 B. *Strongylus filaria*, *Rud.*

Hab. In the sheep.

One of the bronchial tubes of a sheep is laid open, and a number of this species exposed. On the cut surface of the lung they may be observed hanging out of the smaller ramifications of the air tubes.

Fig. Bremser, *Icon. Helminth.* *tab.* iii. *fig.* 26—31.

Donor, Sir Everard Home, Bart.

178 C. *Strongylus inflexus*, *Rud.*

Hab. In the porpesse (*Delphinus Phocæna*).

The specimens were found July 1829, in the pulmonary arteries of a por-

pesse, extending from the trunk to the minute branches. The vessels were in a healthy condition, not presenting any of the morbid appearances observable in the mesenteric arteries of the horse or ass when infested with this genus. (No. 175. 176.)

Donor, Mr. R. Owen, 1829.

178 D. *Strongylus inflexus*.

A portion of the lung of a porpesse, exhibiting a single specimen in one of the extreme branches of the pulmonary artery; none were found in any other part of the lungs of this animal.

Donor, Mr. R. Owen, 1830.

179. *Strongylus minor*, *Kuhn*, *Mém. du Mus.* xviii. p. 363.^a

Hab. In the Porpesse. Numerous specimens from the cavities of the tympanum, of the Eustachian tube, and of the venous sinuses at the base of the brain.

Vide *Gallery*, No. 1622: Dissection of the organ of hearing of a porpesse infested with this species.

180. *Strongylus criniformis*, *Rud.* *Uncinaria Melis*, *Gmel.*

Fig. Goeze, *Naturg. der Eing.* tab. iii. *fig.* 1—4. *Asc. criniformis.*

Hab. The intestines of the Badger (*Meles vulgaris*).

180 A. *Strongylus Vulturis*. *Sp. dub. ore papilloso, parte posticâ crassiore.*

Hab. In a Vulture.

Mus. Brookes. See *Catal.* p. 105. lot 47 Œ.

The "bursa penem emittens" is well shown in the male specimens.

Genus IX. ASCARIS.

Corpus teres, elasticum, utrinque attenuatum. Caput trivalve. Genitale masculum; spiculum duplex.

181. *Ascaris lumbricoides*, *Linn.* *Syn. Engl.* The Round Worm.
Germ. Spulwurm. *Fr.* Lombric. *Ital.* Verme tondo, lombrico.

^a Rudolphi considers this worm a variety only of the preceding species. "*Strongylus inflexus* mihi dictus, quem Klein, Camper, et Albers in Delphini Phocenæ tympani cavo reppererunt, a verme quem Amicus modo dictus in ejusdem bestię pulmonibus detexit, vix specie differre videtur." *Entoz. Hist.* Nat. i. p. 348.

Fig. Goeze, *Naturg. der Eing. tab. i. fig. 1—3.* *Ascaris Gigas.* Bremser, *Icon. Helminth. tab. iii. fig. 10. 11.* (The head.)

Hab. The small intestines of Man, and also in the intestines of the genera *Sus*, *Bos*, *Equus*, and *Asinus*.

181 A. *Ascaris lumbricoides* ;

longitudinally dissected to exhibit the numerous convolutions of the oviducts. See *Gallery*, No. 2484. 2485.

Fig. Phil. Trans. xii. 1683, *Lumbricus teres*, account of, by Edward Tyson, M.D. *pl.* at p. 161, *fig. 2. 3.* *Cornua uteri (oviducts) in situ, and unfolded.* See Cloquet, *Anat. des Vers Intest. pl. iv.*

Mus. Brit.

181 B. *Ascaris lumbricoides* ; *Ascaris megalocephala*, *Cloquet*.

Hab. The intestines of the Zebra.

The heads of these specimens very well illustrate the peculiarities observed by Cloquet in the lumbricoid ascarides of the horse. *Anat. des Vers Intest. p. 59.*

Donor, Mr. Cross.

182. *Ascaris marginata*, *Rud.* *Asc. Canis*, *Gmel.* *Lumbricus Canis*, *Werner.*

Fig. Bremser, *Icon. Helminth. tab. iv. fig. 21.*

Hab. The small intestines of the Dog.

Many specimens mixed with *Tæniæ*. *Vide* No. 219.

183. *Ascaris vermicularis*, *Linn.*

Fig. Goeze, *Naturg. der Eing. tab. v. fig. 133—137.*

Hab. The large intestines of Man ; especially the rectum of young individuals.

The rectum of a child inverted near its termination, showing the *Ascarides* firmly attached to the mucous membrane.

184. *Ascaris vermicularis*.

The rectum of a soldier from Portugal laid open. The mucous coat is much thickened, and is perforated in many places by these *Ascarides*.

184 A. *Ascaris spiculigera*, *Rud.*

Fig. Bremser, *Icon. Helminth. tab. v. fig. 5—8.*

Hab. The œsophagus and proventriculus of the Cormorant (*Phalacrocorax Carbo*).

Mus. Brookes. See Catal. p. 105. lot 48 Œ.

184 B. *Ascaris spiculigera*.

The proventriculus and gizzard of a Cormorant, laid open to show these *Ascarides* coiled up and intermixed with flakes of mucus.

Donor, Sir Everard Home, Bart. V.P.R.S. &c.

185. *Ascaris Testudinis terrestris* ; an *A. dactylura*, *Rud.* ?

Hab. "From the rectum of a land tortoise" on the bottle.

The specimens are exceedingly numerous and small, not more than one-fourth of an inch in length, and of a yellowish hue ; extremities equally attenuated. Rudolphi relates, after Redi, that not less than 72,000 of these *Ascarides* were found by the latter in the cæcum of a land tortoise.

185 A. *Ascaris Pythonis*. (*Sp. dub.*)

Many specimens from the stomach of a large serpent (*Python*, *Daudin*), where they were intermixed with *Bothriocephali*. (No. 206 c.) They are between five and six inches in length.

Donor, Mr. Cross.

186. *Ascaris Colubri*. (*Sp. dub.*)

Hab. The stomach of a Coluber.

The *Ascarides* are exposed in situ, of various sizes ; a bristle is passed behind some of the largest specimens, which are about two lines in diameter.

187. *Ascaris* ——— ; *corpore utrinque æqualiter attenuato*.

These specimens are of a deep amber colour, and vary in length from two to four inches.

188. *Ascaris* ——— ; *parte posticâ crassiore*.

Colour a pale yellow ; a few are of the length of four or five inches, the rest scarcely exceed an inch, but seem from their habit to have been from the same animal.

189. *Ascaris* ——— ; *corpore utrinque æqualiter attenuato*.

About a third of an inch in length, and very pointed at the extremities.

Genus X. OPHIOSTOMA.

Corpus teres, elasticum, utrinque attenuatum. Caput bilabiatum, labio superiore et inferiore.

Genus XI. LIORHYNCHUS.

Corpus elasticum, teres. Caput evalve, oris tubulo emissili, lævi.

189 A. Liorhynchus gracilescens, Rud.

Hab. In the Great Seal (*Calocephalus barbatus*).

Numerous specimens found in the stomach; some exhibit the *tubulus emissilis*, others are larger and have the habit of ascarides.

Donor, John Edwards, Esq. Surg. R.N.

ORDO II. ACANTHOCEPHALA.

Genus XII. ECHINORHYNCHUS.

(*Character Ordinis etiam ille Generis unici.*)

190. Echinorhynchus porrigens, Rud. Syn.

Fig. Bremser, Icon. Helminth. tab. vii. fig. 1. Rudolphi, Synopsis Entoz. tab. i. fig. 4.

Hab. The intestines of the Whalebone Whale (*Balæna Mysticetus*).

A portion of intestine, marked "Small Whalebone Whale," to which a number of these Echinorhynchi adhere, their heads being concealed and imbedded in sacculi of the mucous and cellular coats of the gut. For the form of the sacculus and of the animal's head, see *Gallery*, No. $\frac{475}{268}$ et seq., where the Echinorhynchi have perforated both the mucous and muscular coats.

191. Echinorhynchus balanocephalus, R. O. The Acorn-headed Echinorhynchus.

Ech. Proboscide magnâ glandiformi, collo filiformi brevi, corpore anticè crassiore, utrinque obtusissimo.

Long. corp. lin. 7.

Hab. Intestines of *Balæna rostrata*, *Hunter*^a: Phil. Trans. 1787.

This species is the *Echinorhynchus Balænae* of the Hist. Entoz. ii. part 1. p. 304. n. 40, and is there adopted on the authority of Mr. Hunter; but

^a *Balænoptera acutirostrata*, Lacép.

Rudolphi had not seen the species, and consequently, when he afterwards found *Echinorhynchus porrigens* adhering to the intestines of *Balæna rostrata* in the Anatomical Museum at Berlin, he incorporated the two species (Synops. Entoz. p. 71. n. 34. & p. 324.). By Gmelin, on the other hand, it is confounded with the *Echinorhynchus Anatis mollissima* of Phipps (Linn. Syst. Nat. ed. xiii. vi. p. 3045.), which it somewhat resembles; but from which it differs in having a much larger proboscis, and a body thicker in proportion to its length, and more obtuse at the extremities. This proboscis resembles a minute acorn, but is placed in a reversed position, being connected to the body by a filiform neck proceeding to the apex of the smooth part, while the anterior thicker segment, armed with (12 to 15) series of minute recurved hooks, projects forward and simulates the husk or cup.

192. *Echinorhynchus balanocephalus*.

A large portion of the intestine of a Whale, laid open to show a number of this species attached to the internal surface; where the section is made, the form of the head and depth of the sac containing it may be seen.

193. *Echinorhynchus filicollis*, Rud. *Echinorhynchus borealis*, Gmel.
Sipunculus lendix, Solander, *Phipps's Voyage towards the North Pole*, p. 194.

Fig. Original drawing, No. 69. cube ii. drawer 5. *Phipps's Voyage towards the North Pole*, tab. xiii. f. 1. A. B. C.

Hab. "Found adhering by its small snout to the inside of the intestines of an Eider Duck. Mr. Hunter, who at my request dissected it, informed me that he had seen the same species of animal adhering to the intestines of Whales." p. 194.^a

A large portion of the intestine of *Anas mollissima* with a number of *Echinorhynchi filicolles* adhering to its inner surface. On comparing these specimens with the specific character given by Rudolphi, the terms "*corpore oblongo utrinque obtusissimo*" ought rather to be exchanged for "*corpore oblongo utraque extremitate parum attenuato*."

^a Rudolphi, assuming the word 'species' to have been used by Hunter in the conversation in a rigorous sense, observes: "Hunterus se eandem ac insequentem speciem (viz. Ech. An. moll.) in balæna reperisse Phippsio narravit; hoc tamen vix admiseris; mammalium enim et avium vermes nunquam specie conveniunt." Entoz. Hist. Nat. ii. pl. i. p. 304.

194. *Echinorhynchus filicollis*.

A smaller portion of the intestines of a bird, with the species adhering.

ORDO III. TREMATODA.

Genus XIII. MONOSTOMA.

Corpus molle, teretiunculum vel depressum. Pori anticus solitarius.

Genus XIV. AMPHISTOMA.

Corpus molle teretiunculum. Pori anticus et posticus solitarii.

194 A. *Amphistoma conicum*, Rud.

Hab. The first cavity of the stomach of the Reindeer; adhering to its inner membrane by the larger orifice, which must consequently be considered the anterior, and, as Rudolphi has himself remarked (*Synop.* p. 360), will reverse the character given at p. 91. "*A. corpore tereti, retrorsum incremente obtuso, poris integerrimis, antico minimo, caudali magno.*"

Donor, Mr. Clift.

194 B. A portion of the Reindeer's stomach, with a number of the preceding species adhering to it.

This preparation much resembles a stomach with botts (*Vide* No. 608. 609); and the Entozoa might be mistaken for those larvæ on a superficial inspection.

Donor, Mr. Clift.

195. *Amphistoma subtriquetrum*, Rud.?

Fig. Bremser, *Icon. Helminth. tab. viii. fig. 32. 33.*

Hab. The small intestines, cæcum, and colon of the Beaver (*Castor Fiber*).

Genus XV. DISTOMA.

Corpus molle, depressum aut teretiunculum. Pori solitarii anticus et ventralis.

196. *Distoma hepaticum*, Abildgaard. *Fasciola hepatica*, Linn. The Liver-fluke. *Germ.* Der Leberwurm. *Fr.* La Douve.

Fig. Carlisle, *Trans. of Linn. Soc. ii. tab. xxv. fig. 17—19.*

Hab. In the liver, gall-bladder and ducts of Man and other mammifera,

viz. of the genera Ovis, Capra, Bos, Cervus, Equus, Sus, Lepus, &c.
Most common in the Sheep.

These specimens are from the sheep. In many of them the central convoluted tubes, and vessels radiating to the margin, are filled with dark coagulated fluid.

197. *Distoma hepaticum*, (also from the sheep,) of a darker colour.

198. *Distoma variegatum*, R. O.

Dist. teres, abdomine prominente, anticè ad punctum decrescens, posticè obtusum; poro antico rotundo exiguo, ventrali transverso maximo.

Hab. The gall-bladder of the Wolf-fish (*Anarhichas Lupus*).

This species is of the size of a grain of rice, and of a yellow colour variegated with black. It differs from the *Distoma incisum* of Rudolphi (*Entoz. Hist. Nat. ii. pars i. p. 361.*) in the roundness of its form, and in its pointed anterior extremity.

199. *Distoma lineare*, Rud. *Fasciola trachea*, Montagu.

Fig. Trans. of Wernerian Society, i. *pl.* 193. *fig.* 4.

Hab. The trachea of the Domestic fowl and of the Partridge (*Perdix cinerea*). Several specimens from the trachea of a chicken.

200. *Distoma lineare*.

A small portion of the trachea of a bird laid open, and exhibiting one of this species, which has lost its original pink colour, and become blanched in the spirit. The anterior orifice is slightly sexpartite; the ventral foramen is produced on a long capillary stalk, thinner in proportion than that of the *Distoma furcatum* of Bremser; in this example it projects forward unattached to the trachea.

201. *Distoma lineare*.

It is this species of Fluke that occasions the fatal distemper in young chickens and pheasants, usually termed the gapes: after death, the trachea is found to be completely choked up by them, as in the present specimen from the partridge.

202. *Distoma Hydrophidis*. (*Sp. dub.*)

Hab. "Taken out of the ovarium of a Water-snake."—Old Catal.

Genus XVI. TRISTOMA.

Corpus depressum. Pori duo antici simplices, tertius posticus radiatus. Inter illos os, proboscidem ? emittens.

Genus XVII. PENTASTOMA.

Corpus teretiunculum vel depressum. Os inter poros utrinque binos, hamulum emittentes, lunatim positos.

Genus XVIII. POLYSTOMA.

Corpus teretiunculum vel depressum. Pori sex antici, ventralis et posticus solitarii.

ORDO IV. CESTOIDEA.

Genus XIX. CARYOPHYLLÆUS.

Corpus depressum, continuum. Caput dilatatum fimbriatum, bilabiatum, labio superiore et inferiore.

Genus XX. SCOLEX.

Corpus depressum, continuum. Caput bothriis quatuor instructum.

Genus XXI. GYMNO RHYNCHUS.

Corpus depressum, continuum, longissimum, colli receptaculo subgloboso. Caput bothriis duobus bipartitis instructum, proboscides quatuor nudas retractiles emittens.

Genus XXII. TETRARHYNCHUS.

Corpus depressum, continuum. Caput bothriis duobus bipartitis instructum, proboscides quatuor uncinatas retractiles emittens.

Genus XXIII. LIGULA.

1. *Statu ante evolutionem*^a: *Corpus depressum, continuum, longissimum, sulco longitudinali medio exaratum. Neque capite neque genitalibus conspicuis.*

^a The *status ante evolutionem* is that state in which the Ligula exists while in the abdominal cavity of the fish which it infests: the *status evolutus* appears in the Ligulæ of the intestines of birds and mammalia that prey on fish; and is conjectured by Rudolphi to be produced by the increased warmth and space experienced by the entozoon after its change of habitat, from the abdomen of the fish to the bowels of the animal that has devoured it.—*Synops. Entoz.* p. 459—596.

2. *Statu evoluto: Corpus depressum, continuum, longissimum. Caput bothrio utrinque simplicissimo. Ovaria serie simplici aut duplici cum lemniscis in lineâ medianâ.*

203. *Ligula Cyprini. Ligula abdominalis, Gmel.*

Fig. Bremser, *Icon. Helminth. tab. xii. fig. 1—3.* *Ligula simplicissima ex Cyprino Bramâ? (Bream).*

Hab. The cavity of the abdomen of species of the genus *Cyprinus*.

Genus XXIV. TRIÆNOPHORUS.

Corpus elongatum, depressum, subarticulatum. Os bilabiatum, utrinque aculeis binis tricuspidatis armatum.

203 A. *Triænophorus nodulosus, Rud.*

Fig. Bremser, *Icon. Helminth. tab. xii. fig. 4—16.*

Hab. This specimen is from the stomach of the Haddock (*Gadus Æglefinus*); it is also found in *Gadus Lota*, *Perca fluviatilis*, and *Esox Lucius*.

Donor, Mr. Clift.

Genus XXV. BOTHRIOCEPHALUS.

Corpus elongatum, depressum, articulatum. Caput subtetragonum, bothriis duobus vel quatuor oppositis.

204. *Bothriocephalus latus, Bremser. Tænia lata, Linn. The Tape-worm. Germ. Der Bandwurm. Fr. Le Ténia, Le Ver plat.*

Fig. Carlisle, *Linn. Trans. ii. tab. xxv. fig. 12—14.* Jördens, *Helminthol. tab. iv. fig. 1—4.* *Tænia vulgaris, fig. 5—10. Tænia lata.*

Hab. The intestines of Man: prevalent in Switzerland and France; more frequent in Russia than *Tænia Solium*; very rare in England, Germany, and Holland.

The present specimen is figured in an original drawing (No. 71. cube ii.). It was expelled from the intestines of Marian Burgoyne, a native of Lausanne, in Switzerland. An abstract of her case is published in a paper "On the Structure and Œconomy of *Tæniæ*," by Sir Anthony Carlisle, *Trans. of the Linn. Soc. ii. p. 247.*

205. A portion of *Bothriocephalus latus*:

From the same person, but voided some time before the last.

206. *Bothriocephalus latus*:

Also a portion from the same person, probably voided at another period.

206 A. *Bothriocephalus punctatus*, *Rud.*

Fig. Müller, Zool. Dan. *tab.* xlv. *fig.* 5—11.

Hab. In the Turbot (*Pleuronectes maximus*).

Many specimens from the stomach and intestines.

Donor, Mr. Clift.

206 B. *Bothriocephalus macrocephalus*, *Rud.*

Fig. Bremser, Icon. Helminth. *tab.* xiii. *pl.* 12. 13.

Hab. The specimens are from the stomach of the Greenland Dove (*Columbus Arcticus*).

Mus. Brookes. See Catal. p. 105, lot 45 Œ.

206 c. *Bothriocephalus Pythonis*. (*Sp. dub.*)

Hab. From the intestines of a large serpent, ten feet in length, called at Exeter 'Change Boa Constrictor, but which belonged to the genus Python of Daudin.

The specimens are from fifteen to thirty inches in length, composed of very numerous joints, of about a line in length, but varying in this respect according to the state of contraction in the part. The margins of the body are serrated, the general breadth being about two lines, but gradually narrowing anteriorly to about half a line, and then again becoming a little wider towards the head. This part is composed of two suckers of large size and oval shape, the orifices of which are terminal and transverse. These parts, and the lateral and transverse vessels may be seen injected with mercury in Preparations No. 479 A. 865 A. Gallery Series.

Donor, Mr. R. Owen.

206 D. A smaller variety of the *Bothriocephalus Pythonis*.

Immense numbers were found inextricably twined together, and forming a large ball in the stomach of a Python. A group with the heads perfect is suspended in the glass; many *Ascarides* (No. 185 A.) were mixed with these.

Donor, Mr. Cross.

Genus XXVI. TÆNIA.

Corpus elongatum, depressum, articulatum. Oscula capitis quatuor suctoria.

A. Inermes. a. capite simplici.

207. *Tænia denticulata*, *Rud.* *Tænia β Bovis*, *Gmel.*

Fig. Original Drawing, (No. 70. cube ii. drawer 5.) W. Bell. Carlisle,
Linn. Trans. ii. *tab.* xxv. *fig.* 15. 16.

Hab. The intestines of the genus *Bos*.

In this beautiful specimen from the Ox, the head is perfect.

208. *Tænia denticulata*.

A larger specimen than the preceding, but without the head.

209. *Tænia denticulata*.

A fine specimen, with the head perfect, but it is discoloured from having been disposed on black pasteboard.

210. *Tænia plicata*, *Rud.* *Tænia magna*, *T. Equi*, *Gmel.*

Fig. Bremser, *Icon. Helminth. tab.* xv. *fig.* 1.

Hab. The small intestines of the Horse.

Of this species the bottle contains many broken portions, the heads being deficient; also fragments of *Tænia Solium*, which are readily distinguishable from the preceding by the length of the joints.

211. *Tænia perfoliata*, *Goeze.* *Tænia quadriloba*, *T. equina*, *Gmel.*

Fig. Bremser, *Icon. Helminth. tab.* xv. *fig.* 2. 3. 4.

Hab. The cæcum and colon of the Horse.

Five different-sized specimens of this remarkable species are disposed upon stiff paper.

211 A. *Tænia anthocephala*, *Rud.* *Tænia Phocæ*, *Gmel.*

Fig. Fabricius, in *Dansk. Selsk. Skrivt.* i. 2. *tab.* x. *fig.* 3.

Hab. The rectum of the Great Seal (*Calocephalus barbatus*).

Donor, John Edwards, Esq. *Surg. R.N.*

212. *Tænia Omphalodes*, *Hermann.*

Fig. Hermann im *Naturforscher*, *tab.* ii. *fig.* 1. a.—d.

Hab. The intestines of the Short-tailed Field-mouse (*Arvicola vulgaris*).

β. Rostellatæ.

213. *Tænia pusilla*, Goeze. *Tænia cateniformis* Glirium, Gmel.

Fig. Goeze, Naturg. der Eing. *tab.* xxiii. *fig.* 5. 6.

Hab. The small intestines of the Mouse (*Mus Musculus*) and Rat (*Mus Rattus*).

Some of the specimens only are perfect.

B. Armataæ.

214. *Tænia Solium*, Linn. The single Tape-worm. *Fr.* Le Solitaire.

Fig. Carlisle, Linn. Trans. ii. *tab.* xxv. *fig.* 1—8. Werner, Brev. Expos. *tab.* i.—iii. *fig.* 1—46.

Hab. The small intestines of Man. Prevalent in England, Germany, and the East; in France promiscuously with *Tænia lata*; in Switzerland less common than the latter.

In two or three of these specimens the head is complete, and in many of the joints, the vessels are filled with dark coagulated fluid, some partially, others more completely. This circumstance led the celebrated Goeze to describe the vascular structure as varying in the different joints, a mistake which was rectified by Sir A. Carlisle, whose successful injections of these minute parts demonstrate the great regularity of the arrangement of these canals in all the joints.—See Gallery, No. 860—865.

215. *Tænia Solium*.

A portion extended on card; the lateral orifices very obvious.

216. Two joints of the *Tænia Solium*.

The lower one is four inches and a half in length, and three-fourths of an inch across at the broadest part, with a number of orifices in unequal series on either side. These varieties are occasionally observed in the segments of *Tænia Solium*; sometimes their breadth greatly exceeds their length, and with proportionate thickness; at other times they are much elongated, as in the present instance. (Vide *Andry, Vers solitaires*.) Rudolphi^a possesses four of this species that were simultaneously expelled from the same individual.

^a "Vermem solitarium non esse, ideoque Solii nomen non quadrare, nunc quidem neminem latet; ipse quatuor specimina capite instructa ab eodem homine simul dejecta possideo." *Hist. Nat. Ent.* ii. b. p. 163.

217. *Tænia Solium* ;

which has tied itself at one part into a knot.

218. *Tænia marginata*? *Batsch, Bandwürm, p. 125. n. 4. Tænia cateniformis Lupi, Gmel.*

Fig. Goeze, *Naturg. der Eing. tab. xxii. A. fig. 1—5.*

Hab. Intestines of the Wolf (*Canis Lupus*).

Broken portions without head or tail.

218 A. *Tænia serrata, Goeze, Naturg. p. 337. var. α Canis, Gmel.*

Fig. Werner, *Brev. Expos. tab. iii. fig. 70—76.*

Hab. Small intestines of the Dog ;—a single and entire specimen, which extended nearly the whole length of the duodenum, jejunum, and ilium.

Donor, Mr. Clift, 1803.

218 B. *Tænia serrata.*

Smaller specimens of this species from the stomach and intestines of a large dog.

Donor, Mr. Clift, 1807.

219. *Tænia serrata.*

Vide Hunter on the Blood, &c. 4to, p. 302. “A bitch voided some single tape-worms after having tartar emetic injected into the veins.”

220. *Tænia crassicollis, Rud. Tænia serrata β Felis, Gmel.*

Fig. Bremser, *Icon. Helminth. tab. xvi. fig. 1—6.*

Hab. The small intestines of the Domestic Cat.

A small but perfect specimen.

221. *Tænia crassicollis.*

The head and anterior part of the body are displayed on dark paper.

222. *Tænia crassicollis.*

A portion of small intestine of a domestic cat, containing a number of this species. They are sometimes discharged by the mouth.

ORDO V. CYSTICA.

Genus XXVII. ANTHOCEPHALUS.

(*Vesica externa dura elastica, continens alteram tenuiorem, in quâ entozoon solitarium, cujus*)

Corpus elongatum depressum, basi in vesicam abit caudalem ampliatam. Caput (Tetrarhynchi) bothriis (2 vel 4) et proboscibus uncinatis (4) instructum.

222 A. *Anthocephalus macrourus*, Rud. Anth. à queue longue.

Fig. Bremser, Icon. Helminth. tab. xvii. fig. 1. 2.

Hab. In the genus Sparus.

Two specimens: in one the head and neck are protruded from the cyst, in the other they are withdrawn into it and are exposed in situ.

Donor, Mr. Clift.

Genus XXVIII. CYSTICERCUS.

(*Vesica externa simplex, continens entozoon solitarium, cujus*)

Corpus teretiunculum vel depressum abiens in vesicam caudalem. Caput (Tæniæ armatæ) osculis suctoriis quatuor, rostelloque uncinato instructum.

222 B. *Cysticercus fasciolaris*, Rud. *Tænia hydatigena*, Gmel.

Fig. Bremser, Icon. Helminth. tab. xvii. fig. 3—9.

Hab. The liver of the Glires and Vespertiliones.

The liver of a mouse (*Mus Musculus*), entirely occupied by cysts containing this species of hydatid.

Donor, Sir Everard Home, Bart. 1818.

222 c. *Cysticercus fasciolaris*.

The liver of a rat (*Mus Rattus*), with two cysts; each containing a hydatid of this species.

Donor, Mr. R. Owen, 1830.

223. *Cysticercus tenuicollis*, Rud. *Hydra hydatula*, Linn. *Tænia globosa*, Gmel. *Tænia hydatigena*, Pallas. Oval hydatid with a neck.

Fig. Pallas, Miscell. Zool. p. 157. tab. xii. fig. 1—11.

Hab. Pleura and peritoneum of the Ruminants and the Sow.

224. *Cysticercus tenuicollis*.

Hab. "Hydatid from the belly of a sheep." A bristle is passed into the cavity of the cyst.

Vide Bremser, *Icon. Helminth. tab. xvii. fig. 10. 11.*

225. A semitransparent cyst containing *Cysticercus tenuicollis*.

226. *Cysticercus Cellulosæ*, *Rud.* *Tænia Cellulosæ*, *Gmel.* Hydatid Finna, *Blumenbach.* Hydatid of measly pork.

Fig. Jördens, *Helminth. ii. tab. v. fig. 12—16.* *Tænia muscularis.*

Hab. In the intermuscular cellular substance and occasionally the brain of Man; but more common in the Hog, occasioning that state of the muscles called "measly pork."

Portion of the heart of a domestic Hog, beset with cysts externally and in its substance; some containing a hydatid of this species; others empty, the animal having fallen to the bottom of the glass.

227. *Cysticercus Cellulosæ.*

A portion of the heart of a Hog, similarly diseased and beset with these hydatids, but not in so great a degree. See *Pathological Series*, No. 556.

Rudolphi relates that *Cysticercus Cellulosæ* is occasionally found in the muscular parts of human leucophlegmatic subjects; and that he once detected it in the substance of the heart and in various parts of the brain of a female subject.—*Synops. Entoz. p. 546.*

Genus XXIX. CŒNURUS.

Vesica simplex, in quam desinunt plurima Entozoa, quorum

Corpus elongatum, depressiusculum, rugosum; Caput (Tæniæ armatæ) rostello uncinato quatuorque oculis suctoriis instructum.

228. *Cœnurus cereбрalis*, *Rud.* *Tænia cereбрalis*, *Gmel.* Brain-hydatid of giddy sheep.

Fig. Bremser, *Icon. Helminth. tab. xviii. fig. 1. 2.*

Hab. The brain of the Sheep.

For appearances in the brain, see *Pathological Series*, No. 552. 553.

229. *Cœnurus cereбрalis*, artificially attached to its cyst.

The vermiculi were considered by Mr. Hunter as the ova or young of the hydatid: but they appear to be perfect animals, living in society attached to a common cyst; and have each a head provided with hooks and suctorious orifices, as in the armed *Tæniæ*.

Genus XXX. ECHINOCOCCUS.

Vesica externa simplex vel duplex, cujus superficiei internæ insident entozoa plurima, arenulam mentientia, quorum

Corpus obovatum; Caput (Tæniæ armatæ) uncinorum corona et osculis suctoriis instructum.

230. *Echinococcus Hominis*, Rud. *Polycephalus Hominis*, Goeze.

Fig. Rudolphi, Entoz. Hist. Nat. tab. xi. fig. 4.

Hab. The liver and other viscera of Man. "Hydatids, on the inside of which are small ones; human; two preparations." Old Catal. See Pathological Series, No. 565. 566.

The coats of the cyst are yellowish and semitransparent, and the vermiculi resemble small grains of sand.

231. *Echinococcus Veterinorum*, Rud.? *Tænia granulosa*, Gmel.

Fig. Bremser, Icon. Helminth. tab. xviii. fig. 3—13.

Hab. In the viscera of the sheep. See Pathological Series, No. 592: a cyst containing the same species, from the kidney of a sheep.

Vide Phil. Trans. 1706. p. 2304, tab. i. fig. 1. 2. 3. "Of Hydatides inclosed with a stony crust in the kidney of a sheep." By W. Cowper, F.R.S.

232. Cyst containing "a hydatid from a sheep." (*Sp. dub.*)233. The cyst of an *Echinococcus*.

Hab. "Animal hydatid in the human lungs."—Old Catal.

234. Globular cysts of various sizes; part of a prodigious number which were found in a sac in the liver, and dispersed through the cavity of the abdomen of a human dropsical subject.

These cysts, being unprovided with heads and hooks, exhibiting no independent motions, nor containing any organized vermicular bodies, are excluded by Rudolphi* from his system, and, as individuals, from the animal kingdom.

They are called *Acephalocysts* by Dr. Laennec, and *spurious hydatids* by some pathological authors.

* "Mihi quidem ea tandem hydatidis animal vivum vocatur, quæ vitam propriam degit, uti *Cysticerci*, *Cœnuri*, etc. Quæ autem organismi alieni (v. c. humani) particulum efficit, animal me judice dici nequit. Mortua non est, quamdiu organismi partem sistit, uti etiam ulcus, pustula, efflorescentia; sed hæc ideo non sunt animalia."—*Synops. Entoz.* p. 551.

TABLE of the Animals and the Situation in which the preceding ENTOZOA
were found.

ENTOZOA.	HOMO.	SITUS.
<i>Filaria medinensis.</i>		Subcutaneous cellular texture.
<i>Trichocephalus dispar.</i>		Cæcum.
<i>Spiroptera Hominis.</i>		Urinary bladder.
<i>Ascaris lumbricoides.</i>		Small intestines.
<i>Ascaris vermicularis.</i>		Rectum.
<i>Strongylus Gigas.</i>		Substance of the kidney.
<i>Bothriocephalus latus.</i>		Intestines.
<i>Tænia Solium.</i>		Small intestines.
<i>Echinococcus Hominis.</i>		Liver encysted.
<i>Acephalocysts.</i>		Liver, and cavity of abdomen.
PITHECUS SATYRUS.		
<i>Filaria gracilis.</i>		Cellular texture.
CEBUS CAPUCINUS.		
<i>Filaria gracilis.</i>		Cavity of the chest.
CANIS FAMILIARIS.		
<i>Tricocephalus depressiusculus.</i>		Cæcum.
<i>Ascaris marginata.</i>		Small intestines.
<i>Tænia serrata.</i>		Small intestines.
CANIS LUPUS.		
<i>Tænia marginata.</i>		Intestines.
FELIS CATUS, DOMESTICUS.		
<i>Tænia crassicolis.</i>		Small intestines.
PROCYON LOTOR.		
<i>Strongylus Gigas.</i>		Kidney.

MELES TAXUS.

ENTOZOA.

SITUS.

Strongylus criniformis.

Intestines.

MACROPUS MAJOR.

Filaria.

Capsular ligament of the knee-joint.

CASTOR FIBER.

Amphistoma subtriquetrum.

Intestines.

ARVICOLA VULGARIS.

Tenia omphalodes.

Intestines.

MUS RATTUS.

Tenia pusilla.

Small intestines.

Cysticercus fasciolaris.

Liver.

MUS MUSCULUS.

Cysticercus fasciolaris.

Liver.

SUS SCROFA, DOMESTICUS.

Cysticercus Cellulosæ.

Heart.

CERVUS TARANDUS.

Amphistoma conicum.

First cavity of the stomach.

OVIS ARIES.

Strongylus filaria.

The bronchial tubes.

Distoma hepaticum.

Gall-bladder and ducts.

Cysticercus tenuicollis.

Peritoneum.

Cœurus cerebialis.

Brain.

Echinococcus Veterinorum.

Kidney.

BOS TAURUS, DOMESTICUS.

Tenia denticulata.

Intestines.

EQUUS CABALLUS.

ENTOZOA.

SITUS.

<i>Filaria papillosa.</i>	Trachea. Eye.
<i>Strongylus armatus.</i>	Mesenteric arteries.
<i>Tænia plicata.</i>	Small intestines.
<i>Tænia perfoliata.</i>	Cæcum and colon.

EQUUS ASINUS.

<i>Strongylus armatus.</i>	Mesenteric arteries.
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EQUUS ZEBRA.

<i>Ascaris megalocephala.</i>	Intestines.
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CALOCEPHALUS BARBATUS.

<i>Liorhynchus gracilescens.</i>	Stomach.
<i>Tænia anthocephala.</i>	Rectum.

BALÆNA MYSTICETUS.

<i>Echinorhynchus porrigens.</i>	Small intestines.
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BALÆNOPTERA ACUTIROSTRATA ^a.

<i>Echinorhynchus balanocephalus.</i>	Intestines.
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PHOCÆNA COMMUNIS.

<i>Strongylus inflexus.</i>	Pulmonary arteries.
<i>Strongylus minor.</i>	Tympanum, Eustachian tube, &c.

VULTUR.

Strongylus ———.

PHASIANUS GALLUS.

<i>Distoma lineare.</i>	Trachea.
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PERDIX CINEREA.

<i>Distoma lineare.</i>	Trachea.
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COLYMBUS ARCTICUS.

<i>Bothriocephalus macrocephalus.</i>	Stomach.
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^a Balæna rostrata, Hunter.

ENTOZOA.	PHALACROCORAX CARBO.	SITUS.
<i>Ascaris spiculigera.</i>		Œsophagus and proventriculus.

ANAS MOLLISSIMA.
<i>Echinorhynchus filicollis.</i> Intestines.

TESTUDO TERRESTRIS.
<i>Ascaris.</i> Rectum.

PYTHON TIGRIS.
<i>Ascaris.</i> Stomach.
<i>Bothriocephali.</i> Stomach and intestines.

COLUBER.
<i>Ascaris.</i> Stomach.

HYDROPHIS.
<i>Distoma.</i> Ovarium.

ANARHICHAS LUPUS.
<i>Distoma variegatum.</i> Gall-bladder.

GADUS ÆGLEFINUS.
<i>Trienophorus nodulosus.</i> Abdomen.

PLEURONECTES MAXIMUS.
<i>Bothriocephalus punctatus.</i> Stomach and intestines.

SPARUS.
<i>Anthocephalus macrourus.</i> Abdomen.

CYPRINUS.
<i>Ligula.</i> Abdomen.

APIS TERRESTRIS.
<i>Filaria.</i> Abdomen.

Type ANNULOSA^a

Class ANNELIDA.

ORDO I. CRYPTOBRANCHIA.

(*Filiformia.*)

235. *Gordius aquaticus*, *Linn.* *Dragoneau des Sources*, Fr.

Fig. Shaw, Nat. Miscell. iv. *pl.* 121. *Encycl. Méth.* *pl.* 29. *fig.* 1.

Hab. The sand of fresh waters, rivers, springs, &c., which it perforates in every direction.

The extremity by which it is suspended is slightly bifid.

236. *Gordius aquaticus*.

The light-coloured one with the bifid extremity is "from Thames water."

236 A. *Hirudo medicinalis*, *Linn.* *Sanguisuga medicinalis*, *Sav.* The Medicinal Leech.

Fig. Leach, *Encycl. Brit. Suppl.* i. *pl.* 26. *fig.* 2.

Hab. Europe. In the waters of marshes and slow running streams.

See *Gallery*, No. 327. 330. 918. 1294, &c.—dissections of this species.

236 B. *Hirudo*.

Small specimens, gradually tapering to the head, of a light-brown colour, and not exceeding an inch and a half in length.

Presented by Dr. John Davy as the "Ceylon Leech, which is so troublesome in that island, to which it is almost peculiar."

237. *Hæmocharis Piscium*, *Sav.* *Hirudo geometra*, *Linn.* Smooth Sea Leech.

Fig. Pennant, *Brit. Zool. tab.* xxi. *fig.* 3.

Hab. Northern Ocean, attached to fish.

237 A. *Albione muricata*, *Sav.* *Hirudo muricata*, *Linn.* *Pontobdella muricata*, *Leach*, *Zool. Miscell.* ii. *p.* 9. The Skate Sucker.

Fig. Baster, *Opusc. Subs.* ii. *tab.* x. *fig.* 2.

^a Nervous system ganglionic, with the ganglions arranged in a series and brought into communication by a double nervous chord.

Hab. European Ocean; adhering to fish.
Mus. Brookes. Catal. No. 1 v.

(*Lumbricidæ.*)

- 237 B. *Lumbricus terrestris*, *Linn.* *Enterion terrestris*, *Sav.* Earth-worm.

See *Gallery*, No. 920. 1295. 2125.—dissections of this species.

ORDO II. GYMNOBRANCHIA.

(*Serpulidæ.*)

238. *Serpula vermicularis*, *Linn.* *Sav. Syst. des Annelides*, p. 73. Vermicular *Serpula*.

Fig. Müller, *Zool. Dan. tab. lxxxvi. fig. 7. 9.*

Hab. European Seas.

Many small specimens irregularly contorted on a fucus stalk.

- 238 A. *Serpula spirorbis*, *Müller.* *Sav. Spirorbis nautiloides*, *Lam.* *Spirorbe Serpula*.

Fig. Müller, *Zool. Dan. tab. lxxxvi. fig. 1—6.*

Hab. Northern Seas; in this instance attached to various parts of the body of *Arcturus tuberculatus*, *Latr.* See No. 331 A.

Donor, Alexander Fisher, Esq. Surg. R.N.

239. *Serpula costalis*, *Lam.*

Hab. ———

240. *Serpula gigantea*, *Pallas, Miscell. Zool. p. 139.* *Sav. Terebella bicornis?* *Gmel.* Animal Flower, of Home.

Hab. Coast of Barbadoes.

This specimen is removed from its tube, the alimentary canal is exposed, and a bristle passed into the anus.

241. *Serpula gigantea.*

The opercular process (*tuba*, *Pallas*) is entire, and the small tentacles like the horns of a stag, which it supports, are well displayed.

Fig. *Seba*, iii. *tab. xvi. fig. 7. Penicillum marinum*; and i. *tab. xxix.*

fig. 1. 2. *Urtica marina singularis*? Pallas, Miscell. Zool. p. 139. tab. x. fig. 2—10. Abildgaard, in Schriften der Gesell. Naturf. Freunde. Berlin, ix. tab. iii. fig. 4?^a Described by Home as a species of Actinia or Animal Flower, and figured in the Transactions of the Royal Society, lxxv. tab. xi. p. 344; and in the Lectures on Comp. Anat. ii. tab. i. This figure is copied by Dr. Shaw into the Naturalist's Miscellany, viii. pl. 290, and there called *Terebella Madreporarum*.

(*Amphitritidæ*.)

242. *Sabella alveolata*, Linn. *Hermelia alveolata*, Sav. *Amphitrite alveolata*, Cuvier.

Fig. Pennant, Brit. Zool. iv. tab. xcv. Ellis's Corallines, pl. 36. *Tubularia arenosa Anglica*.

Hab. European Seas.

- 242 A. *Terebella conchilega*, Gmel.

Fig. Pallas, Miscell. Zool. tab. ix. fig. 14—22.

Hab. Northern Seas.

The Glass contains the tube only. *Vide* Gallery, No. 2808. 2809.

Donor, Alexander Fisher, Esq. Surg. R.N.

- 242 B. Tubes, formed as in the preceding specimen, of fragments of shell and sand agglutinated together.

Hab. Northern Seas.

Donor, Captain Buchan, R.N.

- 242 c. *Amphitrite auricoma*, Müller. *Amphictene auricoma*, Sav.

Fig. Müller, Zool. Dan. tab. xxvi. Pallas, Miscell. Zool. tab. ix. fig. 3—5.

Nereis cylindrica Belgica.

Hab. Sandy shores of Britain: the specimen is from the coast at Little Hampton, in Sussex. This species is remarkable for the delicate texture of its tube, and the brilliant golden hue of the ciliæ, arranged like the teeth of a comb above the mouth. It is made a distinct genus by

^a The *Terebella bicornis* of Abildgaard is considered by Savigny, on account of its slender opercular pillar and circular disk, as a species distinct from the one under consideration; but these differences, on a comparison of the specimens with the figures quoted, can scarcely be appreciated.

Leach, under the name *Cistena*; by Lamarck, under the name *Pectinaria*; and by Savigny, under that of *Amphictene*.

Donor, John Abernethy, Esq. F.R.S.

243. *Amphitrite Penicillus*, *Lam.* *Sabella pavonia*, *Sav.*

Fig. Müller, *Zool. Dan. tab. lxxxix. fig. 1. 2. Tubularia penicillus.*

Hab. Northern Seas.

The spirit has blanched the body and branchial cirri, which have naturally a reddish tinge.

244. *Amphitrite ventilabrum*, *Gmel.* *Sabella ventilabrum*, *Sav.*

Fig. Ellis's *Corallines*, *pl. 34. Corallina tubularia Melitensis.* *Encyclop.*

Méth. pl. 59. Amphitrite Pinceau.

Hab. Mediterranean Sea.

A small specimen, removed from its tube.

245. *Amphitrite ventilabrum*, *Gmel.*

A fine specimen, in its tube. Of this genus are No. 607 and 1006, Gallery.

The former without doubt *Amphitrite ventilabrum*.

(*Telethusidæ.*)

- 245 A. *Arenicola Piscatorum*, *Cuv. Sav.* *Lumbricus marinus*, *Linn.*

The Sand-worm.

Fig. Müller, *Zool. Dan. tab. clv. fig. 1. bis. Lumbricus marinus.*

Hab. Very common on sandy coasts, burying itself deep, but its retreat is generally distinguishable by a little coil of sand. The present specimen was taken on the shore at Dover, and presented by John Abernethy, Esq. F.R.S.

246. *Arenicola Piscatorum.*

Fig. *Encyclopædia Britannica*, *Suppl. art. Annulosa. tab. xxvi. Arenicola carbonaria.*

Hab. Europe; in the sand, and under stones along the sea-shore: sought after by fishermen for baits.

247. *Amphinome capillata*, *Bruguère, Encycl. Méth.* *Chloeia capillata*, *Sav.* *Terebella flava*, *Gmel.*

Fig. Pallas, *Miscell. Zool. tab. viii. fig. 7—11.*

Hab. Indian Ocean.

The natural brilliant yellow hue of the lateral hairs is lost by long maceration.

248. *Amphinome carunculata*, Brug. *Pleione carunculata*, Sav. *Nereis gigantea*, Linn.

Fig. Seba, ii. *tab.* lxxxi. *fig.* 7. *Millepeda marina Amboinensis?* Pallas, *Miscell. Zool. tab.* viii. *fig.* 12. 13. *Aphrodita carunculata*.

Hab. Coasts of South America.

A remarkably fine specimen, exceeding a foot in length.

- 248 A. *Amphinome carunculata*.

A smaller specimen; the shining hairs of the ventral pediform papillæ are retracted. See *Gallery*, No. 606. Digestive canal exposed.

Mus. Brookes. *Catal.* p. 100. lot 57 Y.

- 249 J. B. *Amphinome tetraëdra*, Brug. *Pleione tetraëdra*, Sav. Four-sided *Amphinome*.

Fig. Pallas, *Miscell. Zool. tab.* viii. *fig.* 14—18. *Aphrodita rostrata*.

Hab. Indian Ocean.

250. *Amphinome tetraëdra*, with the proboscis exerted.

- 251 J. B. *Amphinome complanata*, Brug. *Pleione complanata*, Sav. *Terebella complanata*, Gmel.

Fig. Pallas, *Miscell. Zool. tab.* viii. *fig.* 19—26. *Aphrodita complanata*.

Hab. American Ocean.

252. *Amphinome* ———.

A small specimen, much contracted by the spirit.

(*Eunicidæ*.)

253. *Leodice gigantea*, Sav. *Eunice gigantea*, Cuv.

Fig. Pallas, *Nova Acta Petrop.* ii. p. 229. *tab.* v. *fig.* 1—7. (but figures 2. 3. 4. and 5. exhibit six antennæ.)

Hab. Tropical Seas.

- 253 A. *Leodice gigantea*.

This extraordinary specimen, the largest on record, is ten feet in length, notwithstanding some segments are wanting from either extremity.

Hab. Bermuda. "It was taken in the sea under a stone, in repairing a wharf; and I am sorry to say that the head and tail, together with a part of the body, were destroyed in taking it; I am told what was saved of it measured twelve feet nine inches. It was immediately put into spirits, and when brought to me several hours afterwards, it measured nearly ten feet. The insect is very rare in these Islands (Bermuda), and was never known to exceed twenty inches, or two feet."—Letter from James Christie Esten, Esq. to Sir Everard Home, Bart., with the specimen, dated Bermuda, 9th June, 1812.

(*Nereidæ.*)

254. *Lycoris*^a *foliosa*, R. O.

Lycoris grisea, margaritacea, ligulis branchialibus longis, cirris superioribus latis, compressis, et subvesiculosus.

This remarkable specimen measures ten inches in length; the breadth of the body (exclusive of the feet) is from four to six lines, and gradually diminishes towards the posterior extremity, from which some segments have been lost.

The body is slightly depressed, convex above, and marked with a deep longitudinal furrow beneath; it consists of 140 segments, and is of a blueish gray colour. The proboscis consists of two segments, the anterior being the smallest, and is armed with two strong, curved, pointed, and 4-dentated jaws, acting horizontally, like the maxillæ of insects. The head is trilobate; the exterior lobes obtuse, with a small depression in front of each, into which the lateral antennæ appear to be retracted; the middle lobe bears on its front the two small mesial antennæ, and at its posterior part may be observed four minute black specks (eyes). The large anterior segment formed by the union of the first two, bears eight tentacula (*cirres tentaculaires*, Sav.) of which the superior or dorsal pair is the longest, and the rest diminish in length progressively as they are placed lower down.

The first and second pairs of feet are represented by the tentacula, the remainder are fitted for progression and consist of two parts. The ventral or inferior division (*rame*, Sav.) is provided with a small filiform cirrus,

^a For the characters of this genus see "Système des Annelides," par Jules-César Savigny, p. 29.

with an elongated obtuse and hollow process (*languette*; *ligula branchialis*, Sav.); and above these with a sheath from which projects a packet of shining hairs. The superior or dorsal division, closely connected at its root with the inferior, is provided with a small elongated and flattened process, above which is another much larger, and flat like a scale; but which consists of two laminæ, and is in fact a flattened vesicle. A bristle is introduced into the cavity of some of these hollow laminæ. At their superior margins, these laminæ have a slight notch, from which arises a small *cirrus*; a packet of shining hairs also projects from the notch that separates the two parts of the superior division.

Dr. Shaw has figured this individual in the Naturalist's Miscellany, ix. *pl.* 311; but, deceived by the magnifying power of the glass containing it, he has given it almost twice its natural breadth, and the head and lateral organs are very imperfectly delineated. (The structure of the proboscis, which was retracted when this figure was taken, has been since ascertained by dissection.) He identifies it with the *Nereis lamellifera* of Pallas (*Nereis lamelligera*, *Gmel.*^a) described in the Nova Acta Petropol. ii. p. 232. *tab.* v. But the description of Pallas is taken from two specimens, one from the Indian, the other from the Atlantic Ocean, which appear to be distinct species; for the first (*fig.* 12. 13.) has only three tentacular cirri on each side, while the latter (*fig.* 14. 15. 16. 17.) agrees with the present specimen both in the size and number of the tentacula: in the structure of the head and proboscis, however, and in the form and proportional size of the laminar processes, they evidently differ from the species under consideration, nor would they be admitted by Savigny into the same genus.

See *Gallery*, No. 59. 472. A species nearly allied to this, if not the same.

254 A. *Lycoris* ———.

Hab. ———

Length of body nine inches and a half: number of segments 128, the last

^a Another species is figured as *Nereis lamelligera* *Gmel.* in Sowerby's Brit. Miscell. i. *pl.* 61; but there the larger scale is evidently the superior one, which is the reverse of the specific character quoted: it differs from *Lycoris foliosa* in wanting a cirrus at the superior margin of the larger scale, and by the latter being supported on a much more slender peduncle. As no mention is made of the animal possessing jaws, nor any appearance of them in the figure, it may not even belong to the same genus.

twenty-five becoming suddenly smaller ^a: colour purple, with iridescent tints. The superior cirri are compressed, and of a triangular form, resembling those of the preceding specimen but of smaller size. Maxillæ armed with four teeth.

This differs from *Lycoris podophylla* (Syst. des Annel. p. 30. no. 2.), in having well-marked dentated jaws, as well as in colour and in the number of segments.

Mus. Brookes. Catal. p. 100. No. 56 y.

254 B. *Lycoris margaritacea*, Sav. *Nereis margaritacea*, Leach.

Fig. Encycl. Brit. Suppl. Art. Annulosa, tab. xxvi.

Hab. Northern Seas.

Donor, Captain Buchan, R.N.

254 c. *Myriana longissima*, Sav. Syst. des Annel. p. 41.

Hab. Mediterranean Sea.

Donor, B. C. Henderson, Esq. 1811.

254 D. *Nephthys* ———, Sav.

Hab. This specimen is from the coast of Sussex. It is about eight inches in length, with a proboscis of a deep purple hue; the first segment large, claviform, and terminating anteriorly in small pointed processes; the second very short, with a longitudinal orifice and double row of tentacula. *Nephth. Hombergii?* Sav. Syst. des Annel. p. 34.

Donor, Sir E. Home, Bart.

254 E. *Glycera unicornis*, Sav. Syst. des Annel. p. 37.

Head in the form of a pointed cone; body linear, cylindrical, enlarged towards the anterior part; segments numerous, of a yellow-bronze colour.

Fig. Müll. Zool. Dan. tab. lxii. fig. 6. 7? *Nereis alba*.

Hab. Northern Ocean. By H.M.S. Trent. Northern Expedition, 1818.

“Caught between the ship’s side and the edge of a large floe of ice to which we were moored on the evening of the sixteenth of June, 1818, about twelve miles north-west of Rein-Deer Island, in thirty-six fathoms water; Lat. 79° 56' N. Long. 10° 30' E. The thermometer in the air

^a If this circumstance were natural and constant, it would form good ground for a specific distinction; but it is more probably accidental, formed by regenerated segments after a partial loss of the caudal extremity of the body.

34°, in the water 30° Fahr. When first observed, it was about a foot below the surface of the water, and descending fast towards the ship's bottom. Its motion was quick and lively, and in a spiral or serpentine manner; it was brought up from the depth of four or five feet with a boat-hook. On being placed on a shovel, it cast up a considerable quantity of white slime which rendered the water turbid, and evinced evident signs of animation till immersed in the spirit."—*Note accompanying the specimen.*

Donor, Lieutenant Franklin, R.N.

254 F. Smaller specimens of *Glycera unicornis*.

Caught in the same situation as the preceding, on the twentieth of June, 1818. "The thermometer in the air 34°, water 31°. Several others were observed some feet down in the water at the same time."—*Note accompanying the specimens.*

Donor, Lieutenant Franklin, R.N.

(*Aphroditidæ*.)

255. *Halithæa aculeata*, Sav. *Syst. des Annel.* p. 19. *Aphrodita aculeata*, Linn. The Sea-mouse of fishermen.

Hab. European Seas. The largest and most brilliant of the family; the dorsal scales are covered by a felted downy membrane.

See Gallery, No. 59. 270. 321. 867. 872. 1009. 1303. 2127. &c.—dissections of this species.

256. *Polynoë squammata*, Sav.

Fig. Pallas, *Miscell. Zool. tab. vii. fig. 14.* *Aphrodita squammata.*

Hab. The bottle contains two small specimens of this species; in the upper one the proboscis is exerted.

See Gallery, No. 471. A finer specimen dissected.

257. *Polynoë impatiens*, Sav.? *Polynoë vesiculeuse.*

Fig. *Ouvrage de l'Égypte, Annelides, pl. 3. fig. 2.*

Hab. Gulf of Suez.

This specimen is about three inches long, with twelve pairs of semitransparent vesicular scales on the back.

Class CIRRIPEDA^a.

ORDO I. CAMPYLOSOMATA.

258. *Otion* Cuvieri, *Leach*. *Lepas aurita*, *Linn*.

Fig. Suppl. Encycl. Brit. *tab.* lvii. *Mém. du Mus.* ii. *pl.* v. *fig.* 12.

Hab. Northern Ocean.

259. *Otion* Cuvieri.

A small specimen laid open to show the tentacula and internal structure of the tube.

260. *Otion* Cuvieri.

Laid open to show the respiratory organs and muscles which move the tentacula.

261. *Otion* Cuvieri,

with a young *Cineras vittata* attached to the base of the peduncle.

See *Seba*, iii. *tab.* xvi. *fig.* 5, where the two genera are figured similarly attached.

262. *Cineras vittata*, *Leach*. *Lepas vittata*, *Linn*.

Fig. Suppl. Encycl. Brit. *Art. Cirripedes*, *tab.* lvii.

Hab. Atlantic Ocean. Mediterranean. Coast of Wales, *Montagu*.

263. *Cineras vittata*.

A group of three; one of which is laid open laterally.

264. Young specimens of *Cineras vittata*.

* This class was established by Lamarck, and comprehends the animals familiarly known as Barnacles and Acorn-shells. They are included amongst the Vermes Testacea of the Systema Naturæ under the generic term *Lepas*, and are the Mollusca Cirrhopoda of Cuvier (*Règne Anim.* ii.).

Lamarck and Latreille have pointed out their affinity to the Annulose animals; the latter author and another distinguished entomologist (Mr. W. S. MacLeay) have considered them related to the Entomostracous crustacea. This opinion has been recently supported by some remarkable facts connected with the history of their development, discovered by John V. Thompson, Esq. F.L.S. Surgeon to the Forces, and described in his *Zoological Researches*, No. III. *Memoir* IV.

The anatomy of the Cirripedes has been successfully investigated by Hunter (See in the Gallery of the Collection, No. 63. 64. 65. 582. 1011. 1012. 1013. 1014. 2298. 2299. 2300. 2301. 2302. 2303. 2810.),—by Poli (*Testacea utriusque Siciliae*),—and by Cuvier (*Hist. des Mollusques*).

265. *Cineras Hunteri*.

In this specimen, two small groups are attached to the tail of *Hydrophis bicolor*, which is figured in Russell's *Indian Serpents*, i. *tab.* xli. and is called by the natives "Nalla Wahlagillee Pam." Russell says, "This sea-snake, according to the Vizagapatam fishermen, seldom approaches the shore: several of them had never seen one before. They pretended it was of a very dangerous kind, which is contradicted by the want of poisonous organs."

Dr. Shaw alludes to this specimen in his *Zoological Lectures*, ii. p. 187, where, treating of the genus *Lepas*, he observes, "These animals sometimes attach themselves to animated as well as to inanimate bodies, and are frequently seen on turtles and other marine animals. In the Museum of the late Mr. Hunter is an instance of a species of sea-snake, (the *Anguis platyura* of Linnæus, and *Hydrus bicolor* of more modern naturalists,) which has a group of small *Lepades* affixed to one side of its tail."

And Dr. Leach, in the article *Cirripedes*, *Suppl. to Encycl. Brit.*, says, "We have seen two other species of *Cineras*, one adhering to a *Hydrus* in the Collection of John Hunter, the other in the Collection of Animals formed in the Expedition to Congo by Mr. J. Cranch."

266. *Cineras Hunteri*.

A small group attached by very short peduncles to the cuticle of a snake; probably from the *Hydrophis* of the preceding specimen.

267. *Pentalasmis anatifera*. *Pentalasmis crocea*, Leach. *Lepas anatifera*, Linn. The Barnacle.

Fig. Seba, *Mus.* iii. *tab.* xvi. *fig.* 1. Wood's *Conchology*, *pl.* 2.

Hab. The seas of Europe, Asia, Africa, and America.

267 A. *Pentalasmis anatifera*.

This specimen "is remarkably perfect, the whole cavity being distended with its own ropy mucus. In all the other specimens in the Museum, this mucus has escaped in consequence of the separation of the membrane which surrounds the tentacula, and the animal loses much of its form in consequence of it."—*Note by Mr. Clift in the Book of Donations.*

Donor, Sir Everard Home, Bart.

268. *Pentalasmis anatifera*.

Laid open on the ventral aspect, exposing the tentacula, branchiæ, and ova.

269. *Pentalasmis anatifera*.

One of the lateral valves turned back, and the tubular stem laid open, to show the structure and relative position of the soft parts.

269 A. *Pentalasmis anatifera*.

A large and elegant group, adhering to a portion of wood. The peduncles of some of these individuals are fourteen inches in length.

Donor, Sir Humphry Davy, Bart. P.R.S.

269 B. *Pentalasmis anatifera*.

A fine cluster, springing from a large individual.

Donor, Mrs. Robinson.

269 c. *Pentalasmis anatifera*.

A similar group, similarly attached. See Home, *Comp. Anat.* iv. *pl.* 151.

Donor, Mrs. Robinson.

270. *Pentalasmis anatifera*?

The specimens appear to be very young, and are attached to the fucus called Common Sea-Bottle.

270 A. *Pentalasmis* ———.

A cluster of specimens, adhering round the stem of a fucus, taken off Cape Horn, and presented by Mr. S. Stutchbury.

270 B. *Pentalasmis* ———.

A series of specimens, from the period of their first attachment to foreign bodies to that of the formation of a distinct peduncle and valves; selected from the preceding cluster.

Donor, Mr. S. Stutchbury.

271. *Pentalasmis striata*, *Leach*. *Anatifa striata*, *Brug*. Striated Barnacle.

Fig. *Encycl. Méth.* *pl.* 166. *fig.* 2.

Hab. sp. Atlantic Ocean, Coasts of America.

A group attached to a portion of fucus.

272. *Pentalasmis striata*.

A group in different stages of growth, attached to a fucus.

273. *Pentalasmis striata*.

Many specimens on the stem of a fucus. Some of these are almost buried in the fructification, to which specimens of *Pentalasmis vitrea* are also attached.

274. *Pentalasmis vitrea*, *Leach*. *Anatifa vitrea*, *Lam*. *Lepas fascicularis*, *Ellis*. Bladder Barnacle of some authors.

Fig. Ellis's Zoophytes, *pl.* 15. *fig.* 6. Wood's Conchology, *pl.* 10. *fig.* 4.

Hab. Pacific and Australian Oceans.

A fine group of this species attached to a central round smooth-skinned ball.

275. *Pentalasmis vitrea*.

A group similar to the preceding. A section has been made on one side of the central ball, showing its structure to be cellular; it is probably of vegetable origin, and is frequently met with in the Australian Seas, having this species of *Pentalasmis* attached to it.

276. *Pentalasmis vitrea*.

The lateral valves of one side are removed, so as to exhibit the form and relative position of the tentacula, branchiæ, stomach, &c.

276 A. *Pollicipes Cornucopia*, *Leach*. *Lam*. *Lepas Pollicipes*, *Gmel*.

Var. *valvis scabris*.

Hab. Low islands in the Pacific Ocean.

Donor, G. Tradescant Lay, Esq.

277. *Pollicipes villosus*, *Leach*, *Suppl. to Encycl. Brit.* art. *Cirripedes*, *p.* 170. *tab.* lvii.

In the specimen the brown coriaceous covering of the peduncle is continued on one side over the valves, but is removed from the opposite aspect to show their form. The dorsal valve in this very rare species recedes at its extremity from the lateral valves; the superior of these last are curved backwards so as to meet and join the extremity of the dorsal valve, like the mandibles of a bird.

The stem is beset with small white spines, like bristles, more or less apparent through the external membrane.

278. *Pollicipes villosus*.

A group of three on a portion of a Bivalve shell.

ORDO II. ACAMPTOSOMATA.

279. *Tubicinella Balænarum*, *Lam.* *Tubicinella Lamarckii*, *Leach.*
Lepas trachealis, *Linn.*

Fig. Ann. du Muséum, i. *pl.* 30. *fig.* 1. *Wood's Conch. pl.* 4.

Hab. Fixed to the skin of Whales, sometimes penetrating deeply.

The four which form the present specimen are imbedded to the extent of two inches or more: the tube of one is longitudinally bisected, to display the tentacula and internal peduncle.

280. *Coronula Diadema*, *Lam.* *Lepas Diadema*, *Gmel.*

Fig. Encycl. Méth. *pl.* 165. *fig.* 13. 14. *Blainville, Malacol. pl.* 86. *fig.* 4.

Hab. The skin of Whales.

Numerous specimens imbedded in the skin of a Whale.

281. *Coronula Diadema*.

A very large specimen, to which a group of *Otion Cuvieri* is attached.

282. *Coronula Diadema*.

A similar specimen, showing the *Otion* in different stages of growth; part of the skin of a Whale adheres to the *Coronula*.

282 A. *Coronula Diadema*?

A remarkably fine specimen, attached to the skin of a Whale.

Donor, Mr. Bullock.

282 B. *Balanus glacialis*. (Acorn-shell.)

This species is singularly attached to the spine of a Dog-fish (*Squalus Acanthias*).

Donor, Mr. Clift, 1809.

282 C. *Balanus glacialis*.

Numerous small ones infesting different parts of *Arcturus tuberculatus*.

Donor, Alexander Fisher, Esq. Surg. R.N.

- 282 D. *Balanus Tintinnabulum*, *Lam.* *Lepas Tintinnabulum*, *Linn.*
The Bell Barnacle.

Hab. The Seas of Europe, America, and India. Found in a fossil state in Italy.

One of the valves has been removed to show the animal and its operculum; the *cirri* appear to have been nibbled down by some Crustacea. *Balanus Amphitrite* adheres to the base of the specimen.

Donor, Mr. S. Stutchbury.

- 282 E. *Acasta* ———, *Leach*.

Small specimens of this genus imbedded in *Spongia strobilina*? *Lamarck*.

Hab. Shores of Abyssinia.

Donor, Henry Salt, Esq.

Class CRUSTACEA.

Subclass ENTOMOSTRACA.

ORDO PHYLLOPODA.

(*Ceratophthalmata*.)

283. *Artemia salina*, *Leach, Suppl. to Encycl. Brit.* *Cancer salinus*,
Linn. Lymington Shrimp or Brine Worm.

Fig. Rackett, in *Linn. Trans.* xi. tab. xiv. fig. 8—10.

Hab. The salterns or brine tanks; and in a concentrated solution that destroys most other marine animals.

- 283 A. Small Phyllopodous Crustacea.

“From a bag under the tongue of the Little Auk (*Alca Alle*).”

Donor, Alexander Fisher, Esq. Surg. R.N.

- 283 B. *Branchipus stagnalis*, *Leach, Suppl. to Encycl. Brit.* *Cancer stagnalis*, *Linn.*

Fig. Latreille, *Hist. Nat. des Crustacés et des Insectes*, iv. pl. 36. 37.

Hab. “Is generally found in such waters as are of a soft nature, and particularly in those shallows of rain-water which are so frequently seen in the spring or autumn, and in which the *Monoculus Pulex* of Linnæus, and other small animals abound.” *Shaw, Linn. Trans.* i. p. 103.

Donor, William Clift, Esq. 1819.

ORDO XYPHOSURA.

- 283 c. *Limulus Polyphemus*, *Fabr.* *Monoculus Polyphemus*, *Linn.*
Fig. Leach, Zool. Miscell. *pl.* 84. *Limulus Sowerbii.*
Hab. Coasts of America, from New York to the Gulf of Mexico.
Mus. Leverian.

ORDO SIPHONOSTOMA.

(Caligidæ.)

284. *Lernæa pectoralis*, *Gmel.*
Fig. Müller, Zool. Dan. *tab.* xxxiii. *fig.* 7.
Hab. The pectoral fins of the Haddock, Turbot, &c.

(Epizoadæ.)

285. *Dichelesthium Sturionis*, *Hermann.*
Fig. Hermann, Mém. Aptérol. *tab.* v. *fig.* 7. 8.
Hab. The branchiæ of the Sturgeon.
- 285 A. *Lernæopenna Exocoeti*, *Blainville, Dict. des Sciences Nat.* xxvi.
p. 120. *Lernæa* of the Flying Fish.
Fig. Holten, Acta Danica, Holm. 1802.
Hab. These specimens were taken from the back of the Flying Fish (*Exocoetus volitans*).
Donor, Mr. Clift.
286. *Lernæopenna* ———.
 Another species, with the head and neck far inserted under the integument of part of the fin of some fish, probably a Diodon.
- 286 A. *Lernæa elongata*, *Grant, Brewster's Journal*, vii. *p.* 147.
Fig. Brewster's Journal, vii. *pl.* ii. *fig.* 5. Scoresby, Account of Arctic Regions, i. *pl.* 15.
Hab. Adheres to the cornea of the Greenland Shark.
Donor, Lieut. Colquhoun, R. Art^y. 1823.
287. *Lernæa* ———.

Two specimens, about ten lines in length, attached by long tentacula to the

margin of the anus of a small *Squalus*. In addition to the elongated ovarian appendages, there are also two smaller ones attached to the posterior extremity of this species.

287 A. *Lernæa Spratti*. *Lernæa* of the Sprat.

Fig. Sowerby's Brit. Miscell. 1806.

Hab. Generally attached to the eye of the Sprat (*Clupea Sprattus*), as in the present instance.

Donor, Mr. S. Stutchbury.

287 B. *Lernæa Spratti*.

This specimen is deeply inserted in the skin of the back^a.

Mus. Dr. Jenner.

Subclass MALACOSTRACA.

ORDO DECAPODA. BRACHYURA.

(*Pinnipeda*. Swimmers.)

288. *Matuta Victor*, *Fabr.* Var. *a. punctis sparsis*.

Fig. Rumph. Mus. tab. vii. fig. 8. Desmarest, Sur les Crustacés, pl. 7. fig. 2.

Hab. Indian Ocean.

289. *Lupa Dufourii*, *Desm. Sur les Crustacés*, p. 99. *Portunus Dufourii*, *Latr. (fœmina)*.

Hab. Mediterranean Sea.

(*Orbiculata*.)

289 A. *Ixa canaliculata*, *Leach, Zool. Miscell.* iii. p. 26. *Leucosia Cylindrus*, *Fabr. Latr.*

Fig. Leach, Zool. Miscell. iii. pl. 129. fig. 1.

Hab. Indian Seas.

Donor, Dr. Leach, F.R.S. F.L.S. &c.

^a The fishermen assert, that the sprats to which these *Lernææ* are affixed generally lead the shoal; and on account of the phosphoric light emitted by their parasitic adherents, they call them "Lanthorn Sprats."

(Arcuata.)

290. *Cancer Pagurus*, Linn. Fabr. Leach. Common Crab of the markets.

Hab. During the summer months it frequents all our rocky coasts, generally preferring deep water: is more rarely met with in winter, when it is said to burrow in the sand.

Fig. Leach, Malacostr. Brit. tab. x.

- 291 J. B. *Cancer cinereus*, Bosc. ?

Hab. Coasts of the Mediterranean Sea.

A female with ova.

- 291 A. *Xantho Kumini*.

Rather smaller than the *Xantho florida* of Dr. Leach; but on comparing it with the figure in the Malacostraca Podophthalmata, tab. xi. it differs from that species in having the frontal margin in the form of a sigmoid curve on each side of the central fissure, and in having only two protuberances on the lateral regions; the carpal tubercles are also more produced, and the *pollex* or moveable claw is less curved and shorter in proportion to the *manus*. The upper part of the *manus* is marked with longitudinal and punctuated furrows; but the arcuated front and larger size of this species, with the difference of *habitat*, seem all to indicate that it is distinct from the *Cancer* (*Xantho*) *Poessa* of Olivi, Zool. Adriat. pl. ii. fig. 3. †

Hab. Oahu, Sandwich Islands.

Donor, G. Tradescant Lay, Esq., who gives *Kumini* as the native name.

(Quadrilatera.)

- 291 B. *Macrophthalmus telescopicus*, R. O.

M. oculorum pedunculis extra angulis testæ valde porrectis, lateribus testæ utrinque bispinosis, femoribus supra unispinosis, manibus compressis latis.

For the characters of the genus *Macrophthalmus*, see Latreille in Cuv. Règne Animal, tab. iv. p. 44. nouv. ed. The species under consideration is remarkable for the form of the ophthalmic peduncles, which are slender, endowed with free motion, and so produced as to extend beyond the angles of the shell by half their length.

The glass contains two specimens, a male and a female, of small size, of a dirty blue colour, and slightly tomentose. The *rostrum* is narrow, depressed, and grooved down the middle. The distance between the eyes, which terminate the peduncles, is two inches; the breadth of the *carapace* is one inch two lines. The grooves which lodge the peduncles are wide, and have finely crenate edges. The *manus* is slightly carinate near its outer margin. The margins of the legs are more or less ciliated.

Hab. Oahu, Sandwich Islands.

Donor, G. Tradescant Lay, Esq.

292. *Gelasimus Pugilator*, *Latr.* *Ocypode Pugilator*, *Bosc.*

Hab. Coasts of South Carolina.

Of this genus are the Crabs, termed Callers (*Crabes appellans*), or Fighters, from their large forceps-claw being generally bent in front of the head in a beckoning or pugilistic attitude.

292 A. *Gelasimus Duperreyi*?

A small species. *Carapace* six lines in length and eight in width, smooth, slightly marked with lines in form of \times on the back; margins of the ophthalmic grooves crenate. *Right chela* disproportionately large, the arm furnished with a single tooth, and crenate at the inferior and inner margins; hand moderately compressed, with two transverse rows of small tubercles beneath, near the base of the thumb. *Left chela* very small, and furnished at its extremity with short dark hairs. Body liver-coloured; forceps orange-yellow.

Fig. Duperrey, Voyage autour du Monde, Atlas, Crustacés, *pl. i. fig. 2.*

Gelasimus Duperreyi.

It has been remarked that the unequal size of the forceps-claws is peculiar to the male: in the present instance both specimens are males.

Hab. Oahu, Sandwich Islands.

Donor, G. Tradescant Lay, Esq.

292 B. *Ocypode Urvillii*, *Guérin in Duperrey's Voyage, MS.*

The *carapace* of this species is ten lines in length and an inch in breadth, convex, delicately shagreened, and with a canaliculate margin. The *rostrum* is narrow, inclined, and rounded anteriorly; on each side of it are two incisures, the mesial lodging the peduncles, and the lateral the eyes

themselves, which are very large, and extend almost to the extremities of the peduncles. The fingers of both *chela* are dentated internally and marked with longitudinal lines; the *manus* of the left *chela*, which is the largest, is serrated at its outer margin. The legs are compressed and transversely striated.

Fig. Duperrey, Voyage autour du Monde, Atlas, Crustacés, *pl.* i. *fig.* 1.
(the right *chela* is largest in the figure).

Hab. Low islands of the Pacific Ocean.

Donor, G. Tradescant Lay, Esq.

293. *Pinnotheres Veterum*, *Leach*. *Cancer Pinnotheres*, *Linn*.

Hab. Bivalve shells.

This species has been observed in *Pinna*, and also in *Ostrea edulis*, and is probably that which is alluded to by the ancients as purveying for the Mollusca, in whose shell it may have taken up its abode. Vide *Cic. de Nat. Deor. lib. 2. sec. xlviii.* *Plin. Hist. Nat. lib. ix. cap. 42.*

294 J. B. *Pinnotheres Pisum*, *Latr.* *Cancer Pisum*, *Linn*.

Hab. In the shells of *Modioli*, but most commonly those of *Mytili*; their presence in the latter has been erroneously supposed to occasion those unpleasant symptoms that sometimes come on after eating muscles.

294 A. *Plagusia tuberculata*, *Latr.*

Fig. *Encycl. Méth. pl. 305. fig. 1.*

Hab. Oahu, Sandwich Islands; where it is called by the natives *Prica*.

Donor, G. Tradescant Lay, Esq.

294 B. *Grapsus Thukuhar*, *R. O.*

Carapace quadrilateral, broadest in front; the sides slightly converging to the posterior angles, which are truncated. *Rostrum* very broad, inclined, supporting four prominences, of which the lateral are the largest. No teeth at the sides of the shell, but the anterior angles produced and acute; oblique lines over the branchial regions. *Chela* equal, short, obtuse; *humeri* with two spines; internal margin of the *cubiti* dilated towards the apex, and armed with spines; *carpi* with one or two spines internally; *manus* slightly tuberculated at the upper part, the remainder smooth and mottled with purple. Claws compressed, the *femora* with

two or three spines at their apices, the other joints hairy, the terminal ones armed with short brown spines, sprinkled over with minute brown spots, like the skin of *Sepia officinalis*. Colour, a yellowish dun.

Hab. Oahu, Sandwich Islands. Native name *Thukuhar*.

Donor, G. Tradescant Lay, Esq.

294c. *Grapsus quadratus*.

Breadth and length eight lines; *carapace* convex above, arched at the sides, narrowed and truncated behind; *rostrum* broad, depressed, bearing four slightly elevated tubercles.

Fig. Sloane, *Hist. of Jamaica*, ii. pl. 245. fig. 1. *Cancer marinus minimus quadratus*.

Donor, Sir Everard Home, Bart.

(*Trigona*.)

295. *Macropodia Phalangium*, Leach.

Fig. Leach, *Malacostr. Podophth.* Brit. pl. 23. fig. 6. Pennant, Brit.

Zool. iv. tab. ix. fig. 3. *Cancer Phalangium*.

Hab. Coasts of Europe, Mediterranean Sea.

It is said to invest itself occasionally in leaves of fuci to insnare its prey.

(*Cryptopoda*.)

295A. *Calappa tuberculata*, Fabr.

Fig. Herbst, *Krabben*; tab. xiii. fig. 78.

Hab. Oahu, Sandwich Islands. Native name *Papaki*.

Donor, G. Tradescant Lay, Esq.

DECAPODA. MACROURA.

(*Hippidæ*.)

296. *Remipes* ———.

Hab. ———

Mesial antennæ multiarticulate, and longer than the lateral: the first pair of feet are adactyle, with the second joint subquadrate, large; the second pair elongated, with the last joint narrow, compressed, and pointed; the third and fourth pairs terminate in crescent-shaped laminæ; the fifth

pair is small, and pointed; all are more or less hirsute: the caudal appendages are terminated by two ciliated natatory laminæ. The *carapace* is oval and smooth, with the lateral borders crenate as in *Remipes testudinarius*, but with one tooth only, in the middle of the anterior border, and a slight indentation on each side.

A female, with ova under the broad segments of the tail.

296 A. *Remipes* ———.

Hab. Coasts of Demerara.

A female with ova, the same species as the preceding, but of a brown colour, with the extremities of the tail and feet approaching to black.

Donor, Sir Everard Home, Bart.

297. *Remipes testudinarius*, *Latr.*

Fig. Cuvier, Règne Animal, iv. *pl.* xii. *fig.* 2. *Remipède tortue des côtes de la Nouvelle Hollande.*

Hab. New Holland.

(*Paguridæ*. Hermit or Soldier Crabs.)

298. *Pagurus Bernhardus*, *Fabr.* Cancer *Bernhardus*, *Linn.* The Hermit Crab.

A small specimen in a *Trochus*.

299. *Pagurus Streblonyx*, *Leach*, *Malacostr. Podophth. Brit.* Cancer *Bernhardus*, *Linn.* The Soldier Crab.

Fig. Leach, *Malacostr. Podophth. Brit. tab.* xxvi. *fig.* 1—4.

Hab. European coasts, in deserted turbinated univalves. The specimen is in a *Buccinum*. "The twisted claws distinguish this from all the other species that I have seen^a." Leach, *ut supra*.

300. *Pagurus Streblonyx*.

The specimen is in a *Buccinum undatum*, part of which is removed to expose the body and tail of the *Pagurus*; this is furnished with appendages by means of which, and its diminutive hinder claws, the parasitic occupant is enabled to adhere to the pillar of the shell.

For the *Buccinum*, see Pennant, *Brit. Zool.* iv. *p.* 272. *pl.* 77.

^a Compare with No. 302 B.

301. *Pagurus Streblonyx*.

It has been removed from the large *Buccinum undatum*, which is suspended. On comparing this with the preceding specimens, it will be seen that the Hermit Crabs, as their growth proceeds, occupy shells of successively larger dimensions; and this change of habitation is said to take place annually, at the period of casting the integument.

302. *Pagurus Streblonyx*.

Two specimens, removed from their habitations.

302 A. *Pagurus* ———; allied to *Streblonyx*.

In the upper specimen, the left forceps-claw presents a distinctive character, being of a trihedral form, with a ridge along the superior and external border;—these characters are less strongly marked in the lower specimen. In both, the claws have a slight twist, but less marked than in *Pagurus Streblonyx*. They are of a dirty brown colour, and are beset with minute *Spirorbes*.

Hab. Kamschatka.

Donor, G. Tradescant Lay, Esq.

302 B. *Pagurus splendescens*, R. O.

P. subfuscus, viridi-aurea nitens, chelis tuberculis in longum dispositis, sinistrae digitis valde elongatis.

This singular species has a convex and heart-shaped *thorax*, tridentate in front, the middle tooth produced; of a deep fuscous colour and granulate, very much resembling the back of a toad. The *ophthalmic peduncles* are short and thick. The *chelæ* are elongated, compressed, and of unequal size; the right being the largest: below, they are hirsute and granulate; above, they reflect hues of green and pink with a metallic lustre, and are marked with longitudinal rows of small tubercles; the fingers of each *chela* gradually terminate in points, those of the left being remarkably elongated, bent at their extremities, and closing without intervening space. The second and third pairs of claws are longer than the *chelæ*, compressed, granulate, with serrated margins, and, together with the peduncles of the antennæ, reflect the same hues as the preceding pair; their ultimate joints have a twist as in *Pag. Streblonyx*. The fourth and fifth pairs of claws are very short: the abdomen is short, membranous, and without any lateral laminæ or ciliated appendages; at least there was

no appearance of any in the three specimens from which the preceding characters were taken; but this circumstance may be peculiar to the males.

Hab. Kamschatka.

Donor, G. Tradescant Lay, Esq.

303. *Pagurus Miles*, *Oliv. Encycl. Méth. Ins. viii. sp. 13. p. 643.*

Hab. Sumatra.

In this specimen a number of dark specks may be observed regularly arranged on the concave side of the abdomen, close to the tail; these Mr. Broderip has discovered to be minute acetabula, analogous to the sucking-cups on the arms of the cuttle-fish, and serving to attach the animal more firmly to the *columella* of its habitation. *Vide Zoological Journal, No. xiv. p. 208.*

- 304 J. B. *Pagurus Diogenes*, *Fabr.*

Hab. Indian Seas.

305. *Pagurus granulatus*, *Oliv. Encycl. Méth. Ins. viii. sp. 5. p. 640.*

Hab. Indian Ocean.

This specimen agrees with the description given by Olivier in every respect, except, that the right *chela* is manifestly smaller than the left, and that the four succeeding claws are longer than the *chelæ*.

- 305 A. *Pagurus Aniculus*, *Fabr. Oliv. Quoy & Gaimard.*

Fig. Freycinet, Voyage autour du Monde, Atlas, *pl. 79. fig. 1. Zoologie*, p. 531. *Pagure Vieillard.*

Hab. Carysfort Island. "This species breathes water only, and dies very soon after being removed from that element."—*Note accompanying the specimen by the*

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- 305 B. *Pagurus guttatus*, *Oliv. Encycl. Méth. Ins. viii. sp. 3. p. 640.*

Fig. *Encycl. Méth. pl. 311. fig. 2.* Freycinet, Voyage autour du Monde, Atlas, *pl. 79. fig. 3.*

Hab. Carysfort Island.

Donor, G. Tradescant Lay, Esq.

- 305 c. *Pagurus pictus*, *R. O.*

P. parasiticus, chelis inæqualibus, sinistra majore, digitis granu-

latis; pedibus albis rubro armillatis, tertiis infra penicillato-hirsutis.

Length of body one inch and a half. *Thorax* smooth, white, slightly tridentate in front. *Ophthalmic peduncles* long, crimson at the base, black at the apex; *chelæ* obtuse, of a deep yellow colour, almost smooth, except the fingers, which are studded with small white tubercles. *Antennæ* of a yellow colour, not exceeding the length of the *chelæ*. Second and third pairs of claws marked with alternate transverse belts of white and carmine, the latter being sprinkled with minute white spots, the last joint white with red spots; small stiff red hairs scattered here and there over the claws, the third pair having besides several packets of moderately long pink hairs growing from the under part of the last and penultimate joints, resembling a brush. The *post-abdomen* has four thin horny plates at its upper part, and as many short and delicate ciliated appendages attached to the left side.

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305 D. *Pagurus oculatus*, *Risso*.

Hab. Mediterranean Sea. This example is from the coast of Sicily; the *chelæ* are subequal, and the ophthalmic peduncles very long.

Donor, Lord Valentia, 1811.

306. A small *Pagurus* with subæqual *chelæ*.

Hab. ———

306 A. *Cœnobita*^a *clypeata*, *Latr.* *Pagurus clypeatus*, *Olivier*.

Fig. Encycl. Méth. *pl.* 311. *fig.* 1.

Hab. Oahu, Sandwich Islands, and the low islands of the Pacific generally.

Donor, G. Tradescant Lay, Esq.^b

^a The genus *Cœnobite* was established by Latreille at the expense of the preceding; and is characterized by elongated antennæ, the mesial almost equalling the lateral in length; and by the form of the thorax, which is conical, narrow, elongated, truncated anteriorly, and so compressed laterally, that the sides form right angles with the dorsum. This species is the type of the Genus.

^b This species, Mr. Lay tells us, abounds in the low islands of the Pacific, where it is a great article of food. The natives roast them, after pulling off their claws, which are scattered about. These fragments soon attract others of the species, which come to feed on the remains of their unfortunate companions; so that after the meal has commenced, an ample supply is thus kept up.

Mr. Stutchbury says that they commonly select *Turbo setosa* Lam. for their habitation; and that he

307. *Cænobita Hunteri*, R. O.

This species is about two inches and a half in length.

Chelæ unequal; the *manus* of each has a tuft of yellow shining hairs on its superior margin; that of the left is remarkably gibbous externally, and smooth, with the exception of a few minute scattered puncta; in the latter respect, and in colour, it differs from the preceding specimen, and appears to have been hitherto undescribed; it is proposed as a new species, with the following character:—

Cænobita albida, pedibus punctatis, chelâ sinistrâ majore, obtusâ, manu sublati, extrorsum forte gibbosa.

To this species is affixed the name of the Immortal Founder of the Collection in which it has long remained unnoticed. There is unfortunately no record of its *habitat*.

307 A. *Cænobita Layi*, R. O.

*C. chelâ sinistrâ majore, manu interne carinato, supra tuberculis in linea dispositis, unguibus pedum secundi tertii que paris tri-
edris.*

Length of body one inch two-thirds.

This is a small and elegant species; the *thorax* is granulate and of a light brown colour; the legs and antennæ of a blueish-gray colour; the outer surface of the *manus* is marked with a deep brown spot^a. It differs from the preceding species in having a line of small tubercles on the upper part, and a distinctly elevated ridge on the inner part of the left manus, which is also more compressed laterally, and more pointed; and the last joints of the second and third pairs of claws, which in *Cænobita Hunteri* are rounded, in this species present three angles.

It is named in honour of the Donor, George Tradescant Lay, Esq., by whom the Museum has been enriched with this and many other rare and beautiful specimens; collected by him in the Pacific Ocean during the Expedition of Captain Beechey, in H. M. S. Blossom, in the years 1826, 1827.

Hab. Carysfort Island.

has met with them dragging about this very heavy shell four hundred feet above the level of the sea, in the island of Tahiti.

^a The part probably which serves as the operculum of its borrowed habitation.

The lower specimen in the glass is partially withdrawn from the *Helix*, its habitation, to expose the ova.

307 B. *Cœnobita* Layi^a.

Two small specimens; one of them is in a *Helix*.

Hab. Carysfort Island.

Donor, G. Tradescant Lay, Esq.

(*Galatheadæ*.)

308. *Galathea squamifera*?

An imperfect small specimen.

Vide Leach, *Malacrostr. Podophth. Brit. tab.* xxviii.

309. *Exuviae* of a *Macrourous* Decapod; probably a *Galathea*.

309 A. *Porcellana coccinea*, R. O.

P. coccinea, *chelis æqualibus*, *ulnis interne unidentatis*, *carpibus quadri-dentatis*, *manibus supra carinatis*.

Length of body one inch and a half.

Rostrum advanced, pointed, grooved down the centre, with two small lateral teeth: *carapace* rugose, laterally and inferiorly canaliculate: *chelæ* equal, large, compressed, slightly scabrous superiorly, smooth beneath; *cubiti* with a single spine internally, *carpi* with four; form of the *manus* when closed lanceolate, above carinate, the external margin slightly and irregularly serrate; fingers unarmed, and closing without intervening space: *femora* compressed; superior margins serrate and ciliate. The crimson tinge is scattered over the body in spots and striae; it is strongest at the extremities of the legs.

Hab. Low Islands of the Pacific Ocean.

Donor, G. Tradescant Lay, Esq.

^a In addition to the distinctive characters given by Latreille (*Familles Nat. du Règne Anim.* p. 276. *Règne Anim. Cuv. t. iv. p. 77. nouv. ed.*), the following circumstances are common to all the preceding specimens of *Cœnobita*. The truncated anterior margin of the thorax is canaliculate, and its angles are produced forwards; the ophthalmic peduncles are compressed laterally, and converge. The first joint of the mesial antennæ is conical, and has a spine at the upper part near the base; the manus of each chela has a small tuft of shining brown hairs on its superior margin, and that of the left is produced inferiorly; the four anterior claws are subhirsute, longer than the chelæ, and the third pair is longer than the second; add to which, that the general form of the animal bears the aspect of having been influenced by lateral pressure,—probably in relation to the form of the peculiar genus of shell selected for its abode.

(Scyllaridæ.)

310. *Scyllarus latus*, Latr. Orchetta, Rondel.

Fig. Encycl. Méth. *pl.* 313.

Hab. The shores of the Mediterranean, where its flesh is much esteemed. The lateral antennæ, or rather their peduncles, are singularly modified into four broad and flat articulations, notched and hirsute at their margins.

The specimen is a male, nearly a foot long.

(Palinuridæ. Cray-fish.)

311. *Palinurus ornatus*, Fabr.

Fig. Encycl. Méth. *pl.* 316.

Hab. Indian Ocean.

(Astacidæ. Lobsters.)

312. *Thalassena scorpionoides*, Leach.

Fig. Leach, Zool. Miscell. iii. *pl.* 130. Herbst, Drif. Band. *pl.* 62. *Cancer Astacus anomalus*.

Hab. Indian Ocean. A very fine example of this rare species.

313. *Astacus marinus*, Fabr. Cancer Gammarus, Linn. Common Lobster.

Fig. Pennant, Brit. Zool. iv. *pl.* 10. *fig.* 21.

Hab. European seas; especially along the coasts of Norway.

314. *Astacus fluviatilis*, Fabr. Cancer Astacus, Linn. The Craw-fish.

Fig. Pennant, Brit. Zool. iv. *pl.* 15. *fig.* 27.

Hab. European rivers, in holes which they form in the clayey banks.

(Caridæ. Shrimps and Prawns.)

- 314 A. *Crangon vulgaris*, Fabr. Cancer Crangon, Linn. The Shrimp.

Fig. Pennant, Brit. Zool. iv. *pl.* 15. *fig.* 30.

Hab. The specimens are from the Arctic Ocean.

The species is found in vast quantities along the sandy shores of Britain.

Donor, Alexander Fisher, Esq. Surg. R.N.

315. Small specimens of Crangon, that lived in salt-pans.

315 A. Crangon Boreas, *Fabr.*

Fig. Phipps, Voyage towards the North Pole, *pl.* 12. *fig.* 1. *Cancer Boreas.*

Hab. "Winter-harbour, Melville Island."

Donor, Alexander Fisher, Esq. Surg. R.N.

315 B. Crangon Boreas.

Hab. Winter-harbour, Melville Island. A *Spirorbe Serpula* is attached to the extremity of the rostrum, and small *Balani* are imbedded in the thorax.

Donor, Captain Edward Sabine, F.R.S.

315 C. Crangon salebrosus, *R. O.*

C. salebrosus, thorace septem-carinato, segmentis binis spinis utrinque terminatis.

Length of body four inches. Colour a deep brown.

General habit of the body granulate and scabrous. *Thorax* seven-carinate, the lateral carinæ serrate, the inferior ones indicated by tubercles longitudinally disposed, the middle one with two or three serrate and not very produced or acute spines; *rostrum* short, depressed, grooved on each side; four spines beneath the thorax, as in *Crangon Boreas*; the second pair of legs are elongated and didactyle, as in the type of the genus, and the abdominal segments terminate inferiorly in two spines; by which circumstances it may be readily distinguished from *Crangon septem-carinatus*, *Sabine, Suppl. App. to Parry's Voyage, p.* ccxxxvi. *pl.* ii. *f.* 11. 12. 13, and from *Pontophilus spinosus*, *Leach, Malacostr. Podophth. Brit. t.* xxxvii A.

Hab. Shores of Kamschatka.

Donor, George Tradescant Lay, Esq.

315 D. Hippolita armata, *R. O.*

H. thoracis carinâ dentibus quatuor, margine antico trispinoso, segmentis spinis acutis binis aut ternis utrinque terminatis.

Length of body three inches. Colour brown.

This species bears a near resemblance to the *Alpheus aculeatus* of Sabine, *Suppl. App. to Parry's Voyage, p.* ccxxxvi. *pl.* ii. *fig.* 9.; like it, it has

the apex of the pediform palpi and the middle lamella of the tail spinulose, and differs only in having the second, third, and fourth abdominal segments terminating inferiorly in three spines; in the former the middle spine is most produced, in these the posterior. In the present specimens the femora of the third, fourth, and fifth pairs of claws are spinulose externally, the terminal spine being the longest; but these were less obvious in another specimen.

As it seems now agreed to restrict the genus *Alpheus* to those species whose second pair of claws are shorter than the first, this species is referred to the genus *Hippolite* of Leach, characterized by the second exceeding the length of the first pair of claws, and in which, for the same reason, the *Alpheus aculeatus* of Captain Sabine should be included.

Hab. Shores of Kamschatka.

Donor, George Tradescant Lay, Esq.

315 E. *Hippolita armata*.

In this singular specimen the internal seta of the left internal antenna is produced to more than half the length of the external antenna, which it exceeds in thickness, and, as part has been broken off, might even have surpassed it in length; the corresponding seta of the opposite side has been unfortunately lost, but from the thickness of the part that remains, it was probably as long as the other. Does this circumstance indicate a new genus, or is it accidental? From the close affinity which this individual manifests in every other particular with the preceding, the latter may be considered the more probable opinion.

Donor, George Tradescant Lay, Esq.

316. *Penæus Orbignyanus*, *Latr. Nouv. Dict. d'Hist. Nat.* xxv. p. 155.

Caramote of Orbigny.

Hab. Coast of La Vendée.

317. *Stenope hispidus*, *Latr.* *Palæmon hispidus*, *Oliv.*

Fig. *Encycl. Méth. pl.* 319. *fig.* 2.

Hab. Australian Seas.

A beautiful and perfect specimen of a female with ova.

318. *Palæmon serratus*, *Leach.* *Astacus serratus*, *Herbst.*

Fig. Pennant, *Brit. Zool.* iv. *pl.* 16. *fig.* 28. *Palæmon Squilla.*

This specimen has been taken during the process of casting its integument, part of which still adheres to the head. The tumour on the left side of the thorax is produced by the lodgment of a parasitic crustaceous animal (Bopyrus, see *No.* 325.), and it is worthy of remark, that the new semi-transparent crust has been formed over it and is moulded upon it.

319. *Palæmon Carcinus*, *Oliv. Encycl. Méth. Ins. tom. viii. p. 659.*

sp. 1. *Cancer Carcinus*, *Fabr. Indian Prawn.*^a

Fig. Encycl. Méth. pl. 292. fig. 2.

319 A. *Palæmon Carlislei*, *R. O.*

P. rostro utrinque serrato, antennarum squamas æquante ; pedibus secundi paris longissimis, intus muricatis, digitis villosis nigris.

This species is about seven inches in length, of a yellowish colour with shades of brown, and a tinge of red at the tail. The thorax is smooth, with sinuosities marking out the branchial regions, and bidentate on either side. The rostrum, commencing a little beyond the middle of the thorax, extends to the extremities of the squamæ of the antennæ, and is 9-dentate above, and 5-dentate beneath. The exterior antennæ are a little longer than the body; the first joint of the internal antennæ has two spines externally, one near the base, the other at the termination. The first pair of claws is short, slender and didactyle; the second pair is seven inches in length, and cylindrical; these elongated claws bear on their internal aspects numerous elevated points or small tubercles disposed for the most part longitudinally, externally they are scabrous; the fingers are almost as long as the manus, with three or four small teeth (one larger than the rest) at the base of each, and covered with short, thickly set, soft hairs, of a black colour; circumstances which distinguish it materially from the *Palæmon ornatus* of Olivier (*Encycl. Méth. Ins. tom. viii.*

^a The *Palæmon Carcinus* of Leach, *Zool. Miscell. ii. pl. 92*, Jamaica Prawn, is a species distinct from the present, for it has a rostrum scarcely equalling in length the squamæ of the exterior antennæ, and tridentate beneath; while in the specimen before me, the rostrum extends beyond the squamæ, and is 6-dentate beneath; the proportions of the second pair of feet and the single tooth on the side of the thorax in the figure given by Dr. Leach, also cause it to deviate from the present specimen; to which the synonyms of Fabricius (*Suppl. Ent. Syst. p. 402. sp. 1. "P. chelis porrectis muricatis, rostro ascendente antennarum squamis longiore"*) and of Latreille (*Hist. Nat. des Crust. et des Ins. vi. p. 260. sp. 10.*), ought to apply, rather than to the *Palæmon Jamaicensis* of Herbst (*Cancr. ii. tab. 27. fig. 2.*).

p. 660. *sp.* 5.), which is a New Holland species. Their extremities also are pointed, and incline a little towards each other; whilst the pollex or moveable finger has a slight but gradual curve.

Hab. From a fresh-water swamp in Africa; described as frequently making use of these arms to climb up reeds &c. out of the water.

To the *Donor*, Sir Anthony Carlisle, F.R.S. F.L.S. &c., by whom the Museum is enriched with many beautiful and singular specimens, and Natural Science by valuable contributions, this species is dedicated.

319 B. *Palæmon hirtimanus*, *Oliv.* Hairy-handed *Palæmon*.

Fig. *Encycl. Méth. pl.* 318. *fig.* 2.

Hab. Indian Seas.

319 c. *Palæmon hirtimanus*. *Var. chelâ dextrâ majore.*

In both these specimens a white villosity may be observed on the hand of the larger chela.

ORDO STOMAPODA.

320. *Squilla Mantis*, *Fabr.* Cancer Mantis, *Linn.* Sea Mantis.

Var. major, pollicibus octo-dentatis.

Fig. *Encycl. Méth. pl.* 324.

Hab. Mediterranean Sea.

A very fine specimen, fourteen inches long.

321. *Squilla Mantis*.

A small but perfect specimen; the spines of the thumb are in this instance six in number.

321 A. *Squilla maculata*, *Fabr.* Cancer arenarius, *Rumphius*.

Fig. *Encycl. Méth. pl.* 323.

Hab. Indian Ocean; coasts of Abyssinia.

A well-marked specimen, about eight inches in length; thumb with six spines.

321 B. *Squilla maculata*, *Fabr.*

A large example, a foot long; thumb with nine spines.

Hab. Abyssinia.

Donor, Henry Salt, Esq.

322. *Squilla maculata*.

Maculæ very faint; thumb five-toothed.

322 A. *Squilla scabricauda*, *Lam.**Fig.* Encycl. Méth. *pl.* 525. *fig.* 1.*Hab.* Indian Ocean.

Rows of small spines on the segments of the tail: nine spines on the thumb.

323. *Squilla chiragra*, *Fabr.* *Gonodactylus chiragrus*, *Latr.* *Règne**Anim.* iv. *p.* 109. *nouv. ed.**Fig.* Encycl. Méth. *pl.* 325. *fig.* 2. Desmarest, *Sur les Crust.* *pl.* 43.*Hab.* Indian Ocean: the specimen is from Sumatra.

In this species the thumb, unarmed with spines, presents a rounded protuberance at its base, and terminates in a thin, slightly curved process (considered a generic distinction by Latreille).

ORDO AMPHIPODA.

*(Gammaridæ.)*323 A. *Gammarus Locusta*, *Leach.**Fig.* Montagu, *Linn. Trans.* ix. *tab.* iv. *fig.* 1. *Cancer Gammarus Locusta.**Hab.* This specimen is from Winter Harbour; the species is common on our coasts, but cannot live out of salt-water.*Donor*, Captain Parry, R.N. 1820.323 B. Numerous specimens of *Gammarus Locusta*, and among them a small *Gammarus loricatus*.*Hab.* Winter Harbour.*Donor*, Captain Parry, R.N. 1820.323 C. *Gammarus loricatus*, *Sabine.**Fig.* Suppl. App. to Parry's Voyage, *pl.* 1. *fig.* 7.*Hab.* Winter Harbour.*Donor*, Captain Parry, R.N. 1820.323 D. *Atylus Ampulla*, *Leach.* *Gammarus Ampulla*, *Fabr.**Fig.* Phipps, Voyage towards the North Pole, *pl.* 12. *fig.* 2.*Hab.* Arctic Ocean.*Donor*, Captain Parry, R.N.

323 E. *Dexamine Edwardsii*. *Talitrus Edwardsii*, *Sabine*.*Fig.* Suppl. App. to Parry's Voyage, *pl.* 2. *fig.* 1—4.*Hab.* Northern Ocean.

In the number of joints and relative length of the antennæ this species should be considered an *Atylus* of Leach and Desmarest; but in the forms of the rostrum and of the four anterior legs, in the form and position of the eyes, and in general appearance, it so closely resembles the genus *Dexamine* of the same authors (see Desmarest, *Sur les Crustacés*, *p.* 263.), that it is there referred accordingly. The elongated vesicular branchiæ attached to the base of the feet are well displayed in this specimen.

Donor, Lieutenant Franklin, R.N. 1818.

ORDO LÆMODIPODA.

(Cyamidæ. Whale Lice.)

324. *Larunda Ceti*, *Leach*. *Oniscus Ceti*, *Linn*. Whale's Lice.*Fig.* Müller, Zool. Dan. *tab.* cxix. *fig.* 13—17.*Hab.* On all the Cetacea.324 A. *Larunda Ceti*.

Three specimens of the natural colour; the uppermost is a female, and shows well the four laminæ attached to the branchial feet, and protecting the ova.

Vide Savigny, *Animaux sans Vertèbres*, *pl.* v. *fig.* 1. 2. *prem. partie*.

ORDO ISOPODA.

(Epicaridæ. Prawn Lice.)

325. Two Prawns suspended; a portion of integument is removed from the left side of the thorax, exposing Bopyrus Squillarum *Latr.*, Monoculus Crangorum *Fabr.*

Hab. This Crustaceous parasite is generally found imbedded under the integument of the thorax of the genus *Palæmon* or *Crangon*, with its back applied to the branchiæ; it would seem to be nourished by the animalculæ contained in the water which the motion of the respiratory

organs causes to flow over it. Not more than one is ever found on a single Prawn.

325 A. Bopyrus Squillarum.

It lies at the bottom of the glass; the cavity which contained it is on the right side of the thorax of a young Prawn.

(*Cymothoadæ*.)

326. Cymothoa Œstrum, *Fabr.*

Fig. Pallas, *Spicil. Zool. fasc. ix. tab. iv. fig. 13.*

Hab. European Oceans.

327. Cymothoa Œstrum, with the abdomen laid open.

328. Cymothoa Œstrum?

This species differs from the preceding and from the figure in the *Spicilegia Zoologica*, in the form of its head, which is square, being truncated anteriorly, and not extending beyond the notch of the first segment in which it is lodged; also in the form of the sides of the notch, which are broad anteriorly, and have not their angles rounded off.

329. *Æga emarginata*, *Leach.*

Fig. *Encycl. Brit. Suppl. art. Annulosa, pl. xxi. Pennant, Brit. Zool. iv. tab. xix. fig. 1. Oniscus Psora?*

Hab. ———

329 A. *Idotea Entomon*, *Latr.* *Oniscus Entomon*, *Linn.*

Fig. Pallas, *Spicil. Zool. fasc. ix. p. 64. tab. v. fig. 1. 2. 6.*

A fine specimen, four inches in length.

Hab. Shores of Kamschatka.

Donor, G. Tradescant Lay, Esq.

330. *Idotea tricuspidata*, *Latr.*

Fig. Pennant, *Brit. Zool. iv. tab. xix. fig. 5. Oniscus Entomon.*

This species, and not the preceding, is the *Oniscus Entomon* of Dr. Leach, *Linn. Trans. xi. p. 364, "caudâ apice tridentatâ."*

Hab. Shores of the Baltic, and English coasts, among fuci; it is said to do much injury to the nets of the fishermen. In the smaller specimen, the notches and teeth at the extremity of the tail are but slightly marked.

331. *Idotea* *Œstrum*, *Leach. Bosc.* *Oniscus* *Œstrum*, *Gmel.*

Fig. Pennant, *Brit. Zool.* iv. *pl.* xix. *fig.* 6. Pallas, *Spicil. Zool.* ix. *tab.* iv.

“It differs from *Entomon* (*tricuspidata*) in wanting teeth at the extremity of the tail, and having a deep notch instead; the antennæ, too, are evidently shorter.”—*Leach.*

Hab. Coasts of Great Britain.

331 A. *Arcturus tuberculatus*, *Latr., Cuv. Règne Anim.* iv. *p.* 139. *nouv. ed.* *Idotea Baffini*, *Sabine.*

Fig. *Suppl. App. to Parry's Voyage*, *pl.* 1. *fig.* 4—6.

Hab. Baffin's Bay; “brought up in considerable numbers from twenty fathoms depth, coarse sandy bottom, on the west coast of Baffin's Bay, in latitude 71°.” *Supplement to Parry's Voyage*, *p.* ccxxviii. *Vide* Sowerby's *Brit. Miscellany*, i. *pl.* 15, evidently another species of this singular genus.

331 B. A very young specimen of the same species.

Class INSECTA.

Subclass MYRIAPODA.

ORDO CHILOGNATHA.

331 c. *Glomeris ovalis*, *Latr.* *Iulus ovatus*, *Linn. Fabr.*

Fig. *Amœn. Acad. tab.* iii. *fig.* 4. *Latr. Hist. Nat. des Crust. et des Ins.* vii. *pl.* 59. *fig.* 5. 6.

Hab. Shores of Europe.

332. *Iulus terrestris*, *Latr. Linn. Fabr.*

Fig. *Rœmer, Genera Insect. tab.* xxx. *fig.* 15.

Hab. Europe, in sandy places.

332 A. The bottle contains two exotic specimens of *Iuli*. The upper one is of a bright reddish-brown colour, with feet of the same hue, the last segment inclining to white. The antennæ are nearly of the same colour with the body, are seven-articulate, and have a white ring at the extremity of the five proximal joints. This is named, from the latter circumstance,

Iulus annulicornis.

I. rufescens, segmento ultimo submucronato pallido, antennis rufis annulis albis, pedibusque rufescentibus articulis pallidis.

Length of body four inches and a half; about as thick as a goose-quill; number of segments 58.

The lower specimen accords with the characters of *Iulus fuscus* Linn. *Amæn. Acad.* iv. p. 253, except that the terminal joint of the antennæ, being hidden in the penultimate one, appears to have escaped the attention of Linnæus.

332 B. *Iulus vittatus*, R. O.

I. olivaceus, marginibus segmentorum posticis ferrugineis, margine antico segmenti primi aurantio, antennis pedibusque ferrugineis, segmento ultimo inermi.

Length of body four inches and a half, as thick as a swan's quill; number of segments 53.

Hab. Maryland, North America.

This *Iulus* is an exception to the rest of the genus, which are for the most part characterized by some dull uniform colour; it is of a bronze-green colour, with narrow reddish-brown rings at the posterior margin of each segment, forming an agreeable contrast with the bright rufous feet, and the orange-coloured stripe across the front of the first segment. The feet incline to green at their connection with the body. There is no anal mucro. On a close inspection, minute spiraculiform pores may be observed running in a longitudinal row on each side the body. A delicate white line may also be observed running across each segment immediately in front of the brown stripe; and these are connected by three longitudinal lines, one running down the middle of the back, the others in a line with the lateral pores.

333. *Iulus crassus*, Linn. Fabr.

This specimen corresponds in every respect with the Fabrician description: "*Corpus pallescens, utrinque lined e punctis minutissimis nigris, caudâ acutâ.*"

The minute puncta are pores or outlets for the emission of a slimy secretion, and may be observed in all the preceding specimens, where, however, the dark colour renders them less obvious.

Hab. Asia.

In the specimen the number of segments is 58; of pairs of feet, 110; entire length of body, five inches eight lines.

333 A. A remarkably fine specimen of *Iulus*. *Iulus fuscus*, *Fabr.*?

In length seven inches and a half; number of segments 69.

Hab. India.

Donor, B. Clifton Henderson, Esq. 1821.

ORDO SYNGNATHA.

334. *Cermatia araneoides*, *Illiger*. *Leach*. *Scutigera araneoides*, *Latr.*
Iulus araneoides, *Pallas*.

Fig. Pallas, *Spicil. Zoolog.* ix. *tab.* iv. *fig.* 16.

Hab. Europe, in inhabited dwellings. Antennæ a little longer than the body.

335. *Cermatia longicornis*, *Leach*. *Scolopendra longicornis*, *Fabr.*

Hab. Tranquebar. Antennæ twice as long as the body.

336. *Scolopendra Gigas*, *Leach*, *Linn. Trans.* xii. p. 383. The Gigantic Centipede.

Fig. Browne's *Hist. of Jamaica*, *pl.* 42. *fig.* 4.

Hab. Tropical America.

336 A. *Scolopendra Gigas*.

A robust specimen, eight inches and a half in length.

Hab. ———

Donor, Right Hon. Sir Robert Peel, Bart.

336 B. *Scolopendra Gigas*.

A finer specimen, measuring nine inches and a half from the roots of the antennæ to the vent.

Donor, Right Hon. Sir Robert Peel, Bart.

336 C. *Scolopendra Gigas*.

Donor, William Norris, Esq.

337. *Scolopendra alternans*, *Leach*. *Linn. Trans.* xix. p. 383. *Scolopendra morsitans* of Authors. Alternating Centipede.

Fig. Leach, Zool. Miscell. iii. *pl.* 138.

Length five inches and a half; compare the alternately long and short segments in this specimen with their uniform size in the preceding.

- 337 A. *Scolopendra*, with subequal segments and a stripe of green at the posterior margin of each.

Hab. ———

Donor, Thomas Keate, Esq. 1811.

338. *Geophilus electricus*, *Leach.* *Scolopendra electrica*, *Fab.* The Luminous Centipede.

Fig. De Geer, Insect. vii. *pl.* xxxvi. *fig.* 17.*

Hab. The specimen is from Sumatra.

339. *Geophilus electricus*.

A larger specimen of the Luminous Centipede.

Hab. ———

“The shining of the *Scolopendra electrica* I have always observed to be accompanied by the appearance of an effusion of a luminous fluid upon the surface of the animal, more particularly about the head, which may be received upon the hand, or other bodies brought into contact with the insect at the moment, and these exhibit a phosphoric light for a few seconds afterwards. This fluid, however, I never could discover in the form of moisture, even upon the clearest glass, although examined immediately with the most scrupulous attention by a lens; it must therefore be extremely attenuated.”—Macartney, on Luminous Animals, Phil. Trans. 1810.

Subclass ARACHNIDA.

(*Nymphonidæ.*)

- 339 A. *Nymphum gracile*, *Leach.* The Slender Nymphum.

Fig. Leach, Zool. Miscell. i. *pl.* 19. p. 45.

Hab. The British Seas.

- 339 B. *Nymphum hirtum*, *Fabr.* The Hairy Nymphum.

Fig. ———

Hab. Northern Seas.

Donor, Capt. Buchan, R.N.

339c. Nymphum Grossipes, *Sabine*.

Fig. See Captain Sabine's description p. ccxxiv. of the Supplementary Appendix to Parry's Voyage 1819—20, to which this specimen corresponds; the figure in the *Zoologia Danica tab. cxix.* besides the differences pointed out by Captain Sabine, has the extreme joints of the mandibles much less curved and the legs are more slender than in the specimen.

340. Pycnogonum Balænarum, *Lam. Leach*. Phalangium Balænarum, *Linn.*

Fig. Müller, *Zool. Dan. tab. cxix. fig. 10—12.* Pennant, *Brit. Zool. iv. tab. xix. fig. 7.*

Hab. European Ocean. On whales, and sometimes on fuci.

(*Pseudo-scorpionidæ* Latr.)

340 A. Chelifer Latreillii *Leach*?

Fig. *Zool. Miscell. iii. pl. 142. fig. 2.*

Hab. "Minute animals found in a dunghill in Dorsetshire, brought by Mr. Griffiths to Sir Everard Home, Oct. 5, 1818."

Donor, Sir Everard Home, Bart. 1818.

(*Scorpionidæ*.)

341. Scorpio Afer, *Linn.* Buthus Afer, *Leach*. The Great Scorpion.

Fig. Herbst, *Monogr. Scorp. tab. i.**

Each pecten has eighteen teeth.

Hab. East Indies, Ceylon, &c.

342. Scorpio Afer, in a pregnant state.

Pectens with thirteen teeth on one side, and fifteen on the other, two of which next the mesial line are of a darker colour than the rest and appear ready to fall off.

342 A. Scorpio Afer.

A female distended with young, and, excepting the chelæ, thorax and tail, of a pale colour.

Pectens 17-dentate.

343. *Scorpio Afer*.

A female with numerous young ones of which it is said to be the mother. The Scorpion produces its young alive (the ova being hatched in the matrix) to the number of from twenty-six to forty according to Redi ; but Maupertius and Leon Dufour have counted upwards of sixty. These are at first entirely white, but very soon acquire the brown and dusky tints. Pectens 18-dentate.

344. A young *Scorpio Afer*.

The pectens have acquired only eight teeth.

345. *Scorpio occitanus*, *Latr.*

Fig. Herbst, *tab.* iii. *fig.* 3.*

Hab. Tropical America.

The pectens have lost some of their teeth ; but, calculating from the space that is left, each had originally more than twenty.

346. *Scorpio americanus*, *Linn. Latr.*

Fig. Roesel, *Ins.* ii. *tab.* lxvi. *fig.* 5. *Der Surinamische Scorpion.*

Hab. Tropical America.

Pectens 18-dentate.

346A. Small Scorpions from Ceylon ; of the same size and habit as the preceding, but of a darker colour. *Scorpio punctatus* ?

Fig. De Geer, *Mém. Ins.* vii. *tab.* xli. *fig.* 1. *Scorpion ponctue.*

Hab. Ceylon.

Donor, Dr. John Davy, F.R.S. &c.

347. *Scorpio gracilis*, *De Geer*.

Fig. De Geer, *Mém. Ins.* vii. *pl.* xli. *fig.* 5.

Hab. America.

(*Tarantulidæ.*)

348. *Thelephronus caudatus*, *Latr.*

Fig. Seba, *Mus.* i. *tab.* lxx. *fig.* 7—8. Pallas, *Spicil. Zool. fasc.* ix. *tab.* iii. *fig.* 1. 2.

Hab. Tropical America.

349. *Phrynus reniformis*, *Latr. Hist. Nat. des Crust. et des Ins.* vii. p. 133. *Tarantula reniformis*, *Leach. Fabr.* The Kidney-shaped Scorpion-spider.

Fig. Pallas, *Spicil. Zool. fasc. ix. tab. iii. fig. 3. 4.* Browne's Jamaica, *pl. 41. fig. 3.* *Tarantula* 1.

Hab. Tropical America.

- 349 A. *Phrynus palmatus*, *Latr.* *Phalangium palmatum*, *Herbst.* The Palmate Scorpion-spider.

Fig. Herbst, *Naturg. Phalang. tab. iv. fig. 2.†* "*Cette espèce pourroit bien n'être qu'une variété du jeune âge de la précédente. Les 3^e, 4^e, 5^e articles de ses palpes paroissent être plus courts et plus larges, le 4^e surtout.*"—*Latr. Hist. Nat. des Crust. et des Ins.* vii. p. 136.

The figure in the *Encycl. Méth. pl. 344. fig. 2.* represents the carpi of the chelæ too thick, and the second pair of legs too short by an inch, compared with the specimen.

- 349 B. *Phrynus medius*, *Latr.* *Phalangium medium*, *Herbst.* The Intermediate Scorpion-spider.

Fig. Herbst, *tab. iv. fig. 1.*

A fine specimen of this species; the second pair of legs (*pedes antenniformes*) measure five inches and a half, the length of the animal's body is one inch and a quarter.

(*Araneidæ.*)

350. *Mygale avicularia*, *Latr.* *Aranea avicularia*, *Linn.* The Tarantula Spider, *mas.*

Fig. *Latr. Hist. Nat. des Crust. et des Ins.* vii. *pl. 62. fig. 1.*

Hab. Tropical America.

On the terminal joint of the pedipalpi may be seen the tubercle and hook turned downwards, which characterize the male of this species.

351. *Mygale avicularia*, *fæm.*

The hairs in this specimen are very long; a circumstance, *Latreille* remarks, peculiar to young individuals. The same unpleasant effects have been ascribed to these hairs, as are produced on the skin by those of some caterpillars.

352. *Mygale avicularia*.*Hab.* The West Indies.353. *Mygale Blondii*, *Latr.*? *mas.**Fig.* *Latr. Genera Crust. et Insect. i. pl. 5. fig. 1.**Hab.* Cayenne.

On a close inspection the small black spines on the legs, which distinguish this species from the preceding, may be observed.

354. *Mygale Blondii*, *Latr.*? *foem.*

In this and the preceding specimens it may be observed that the hairs have been detached from the upper part of the body chiefly, as if rubbed off by going out of, or retiring into, a narrow aperture.

355. *Mygale nidulans*, *Latr.* *Aranea nidulans*, *Fabr.* *Aranea atra nitida*, *abdomine hirto nigro*, *Mant. Ins. tom. i. p. 343. no. 5.*
Aranea venatoria, *Entom. Syst. ii. p. 408. sp. 7.*

Fig. Browne, *Jam. pl. 44. fig. 3. 3 b.* and in Shaw's *Naturalist's Miscellany*, xv. *pl. 614*, copied from the figures in Browne without any reference to plate or figure, and called *Aranea venatoria*. That name, however, does not belong to the species figured, but ought to apply only to *pl. 44. fig. 2.* of Browne, and to the species described in the 12th edition of the *Syst. Nat.* p. 1035. No. 33. which belongs to the modern genus *Thomisus* of Walcknaer and Latreille.

356. *Mygale nidulans*, *Latr.*

A specimen of a lighter colour than the preceding.

356 A. *Mygale nidulans* and its nest.

The latter is a cylindrical tube, about six inches in length and one inch in diameter. Its texture is like thin tissue paper; thickened at the upper part with additional layers of a brown colour, and adherent portions of earth. The operculum is connected by a continuation of the outer brown matter, and of the inner layer of silken substance over it, and presents externally the appearance of a succession of laminae of progressively increasing size, like the exterior of an oyster-shell.

Hab. Found on Whiting sugar plantation Jamaica, and presented by Walter Huey, Esq. M.R.C.S. March 1830.

Fig. "This sort is represented of the natural size, as well as the nest

(*pl.* 44. *fig.* 3 a.) and both its valves ; which are so well contrived, and so strongly connected, that whenever they are forced open, the native elasticity of the ligaments that fix them restores 'em immediately to their usual position.

“It is most frequent in the loose rocky soils, and nestles under ground. Its nip is very painful for many hours, and sometimes raises a fever and deliriums ; but these are commonly eased by throwing the patient into a moderate sweat, which is commonly done with a little warm rum punch among the negroes, who are most subject to these accidents : this puts them soon to sleep, and in a few hours they are quite recovered.” *Browne's Jamaica*, p. 420.

In the specimens preserved in the collection, the hinge of the operculum manifests none of that elasticity described by Browne : if lifted up, the operculum falls down over the mouth of the nest by its own weight merely, and falls as readily in the contrary direction if the position of the nest be altered.

356 B. A double Nest with valvular lids of the Nidificating Tarantula Spider.

Mus. Brookes, Catal. p. 99. no. 21 v.

357 J. B. Dolomedes ———. *Latr. Genera Crust. et Insect.* i. p. 117. Aranea, Linn.

Hab. India.

This specimen is about one-half the size of *M. avicularia* ; its legs are armed with long slender black spines.

357 A. Dolomedes ———.

Same species as the preceding. The enlarged extremities of the pedipalpi, containing the male organs of generation, denote the sex.

358. Dolomedes ———.

A large female specimen.

359. Dolomedes ———.

This specimen shows the manner in which the spiders of the genus *Dolomedes* protect and carry the egg-bag, attached under the thorax.

360. The Egg-bag of Dolomedes ———.

361. Dolomedes ———.

Of a lighter colour and a little longer than the preceding specimens.

362. Epeira Clavipes, *Walknaer, Tab. des Aran. p. 54. Aranea Clavipes, Fabr.*

Fig. Browne, *Jam. tab. 44. fig. 4.*

Hab. Jamaica.

Its web is of a yellow silk, and so strong that birds are entangled in it, and even man is said to have some trouble to disengage himself from it.

363. Epeira Clavipes.

A female. The abdomen is laid open on one side.

364. Epeira Diadema, *Walck. Aranea Diadema, Linn.*

Fig. Shaw, *Naturalist's Miscell. ix. pl. 308. Latr. Hist. Nat. des Crust. et des Ins. vii. tab. lxiv. fig. 1. 2.*

Hab. Europe. It is the largest and most elegant of the British species.

365. Aranea nobilis, *Shaw.*^a

Fig. *Naturalist's Miscell. ix. pl. 336.* “Of this beautiful species I have observed a specimen in the Museum of the late Mr. John Hunter. The thorax is of an elegant orange colour spotted with black; the abdomen of a bright yellow, with larger deep black spots; the legs half black and half yellow. The specimen is preserved in spirits of wine, and was received from Sumatra.” *Shaw, ut supra.*

The lower specimen in the glass appears to be a young Dolomedes. See No. 357, &c.

366. Epeira tuberculata, *Walck.*

With part of its egg-bag.

367. Epeira sericea, *Walck.*

Fig. *Hist. des Aran. fasc. 3. pl. 2.*

Hab. “Elle est originaire du midi de la France, et habite aussi, à ce qu'il paraît, le Senegal.” *Audouin in Dict. Classique d'Hist. Nat. vi. p. 204.*

368. Epeira mammata, *Walck. Aranea mammata, DeGeer.*

Hab. The Antilles.

^a This is not the *Aranea nobilis* of Fabricius *Suppl. Entom. Syst. p. 291.*

369. *Epeira mammata*.

Two females. In the lower specimen, where the abdomen is much distended, the eminences seem to be in consequence less prominent.

370. *Epeira fasciata*, *Walck*.

Hab. South of Europe.

370 A. *Epeira* ———.

Hab. ———

Donor, J. P. Vincent, Esq. 1828.

(*Gammasidæ*).

370 B. *Gammasus Gymnopteronum*, *Kirby*. *Acarus Gymnopteronum*,
Fabr. Ent. Syst. iv. p. 432. no. 37.

Fig. DeGeer, *Ins.* vii. tab. vii. fig. 9. *Mite des Bourdons*.

Hab. Found infesting a Humble-bee, chiefly about the head and over the eyes, impeding its flight.

“*Apis terrestris*, when labouring under acarasis from the numbers of a small mite (*Gammasus Gymnopteronum*) that infest it, will take its station in an ant-hill, where, beginning to scratch and kick and make a disturbance, the ants immediately come out to attack it, and falling foul of the mites, they destroy or carry them off; when the bee, thus delivered from its enemies, takes its flight.” *Kirby and Spence, Introd. to Entom.* ii. p. 268.

Found at Lancing, October 1817, and presented by Mr. Clift.

370 C. *Gammasus Coleoptratorum*, *Latr.* *Acarus Coleoptratorum*,
Linn. Fabr. Ent. Syst. iv. p. 432. no. 38.

Fig. DeGeer, *Ins.* vii. tab. vi. fig. 15.

Numerous specimens infesting a *Cetonia*, caught near Hampstead.

Donor, Mr. R. Owen.

(*Acaridæ*).

371. *Ixodes* ———; allied to *Ixodes reduvius*, *Leach*. *Acarus reduvius*,
Linn.

Body testaceous; head and feet rufous; margin of the abdomen subcrenate.

Hab. Found on the skin of a *Manis*.

372. A similar but longer specimen, on the scale of a Manis.

373. *Ixodes Ricinus*, *Leach, Linn. Trans. xi. p. 397. n. 3.* *Acarus Ricinus, Linn.* Dog-tick.

Hab. Europe; adhering with tenacity to dogs. It is also called Cow-louse, being often found on cattle.

373 A. *Ixodes splendens, R. O.*

I. orbiculato-planiusculus, maculis tribus viridi-æneis post caput in semicirculo dispositis, supra lineis punctatis ejusdem coloris minus nitidis; abdomine subcrenato.

This beautiful species of Tick has a semicircular mark separating as it were the thorax and abdomen, which is composed of three distinct spots that reflect green and orange tints with a metallic lustre: similar but less brilliant hues are reflected from lines which radiate to the circumference of the body.

Length of body three lines and a half; breadth three lines.

Hab. The Sumatran Tiger; the specimens were attached to the skin behind the ears.

Donor, Mr. Clift.

373 B. *Ixodes splendens.*

Hab. Attached to a portion of skin from the inside of the prepuce of the Sumatran Tapir.

Donor, Mr. Clift.

373 c. *Ixodes splendens.*

Hab. Three specimens from the vulva and perineum of a Rhinoceros. The lower one exhibits the colours of the preceding specimens; the other two, probably from having cast their skins, are of a dull brown hue, and partly transparent. All these specimens were found on opening a barrel containing skins of the above-named animals preserved in spirits; they were, notwithstanding, firmly attached to them.

Donor, Mr. Clift.

374. *Ixodes Iguanæ. Acarus Iguanæ, Fabr. Forsan Acarus auratus, Shaw, Nat. Misc. iv.*

Hab. The skin of an Iguana.

Subclass **APTERODICERA**. (Ametabolia, *Leach*. Apterous Hexapods, *Kirby*.)

ORDO PARASITA.

375. *Phthirus inguinalis*, *Leach*. *Pediculus Pubis*, *Linn*.

Fig. Redi, *Exper. tab. xix. fig. 1. Pediculus inguinalis*.

Hab. "Hospitatur in hominis immundi pube, superciliis: pellitur oleo tabaci." *Fabr*.

Several hairs from the pubis, with the animal and its nits or eggs.

375 A. Many specimens of *Phthirus inguinalis*.

376. Nits or Ova of *Phthirus inguinalis*.

377. *Hæmatopinus Suis*, *Leach*. *Pediculus Suis Scrofæ*, *Linn*. The Swine-louse.

Fig. *Leach*, *Zool. Miscell. iii. pl. 146*.

Hab. On the Hog.

378. *Nirmus Meleagridis*, *Leach*. *Pediculus Meleagridis*, *Linn*. The Turkey-louse.

Fig. *Frisch*, *Ins. 8. tab. iv.†*

Hab. On the Turkey.

379. *Nirmus Columbæ*, *Leach*. *Pediculus Columbæ*, *Linn*. The Dove-louse.

Fig. *Albin. Aran. tab. xliii. Redi, Exper. tab. ii. fig. 1. Pulex Columbæ*.

Hab. On the Dove.

380. *Nirmus Columbæ*. The Dove-louse.

381. *Nirmus Gruis*, *Leach*. *Pediculus Gruis*, *Linn*. The Crane-louse.

Fig. *Redi, Exp. tab. iii. Pulex Gruis*.

Hab. In the Crane.

Subclass **ALATA**.

ORDO COLEOPTERA.

(*Cicindelidæ*.)

382. *Megacephala Carolinensis*, *Latr. Genera Ins. i. p. 175. Cicindela Carolina*, *Fabr*.

Hab. In Carolina.

(Carabidæ.)

- 382 A. *Thermophylla marginata*, Leach. *Anthia marginata*, Klug.
sp. 8. *p.* 347.

Hab. The specimen is from Abyssinia.

Donor, Henry Salt, Esq.

(Dytiscidæ.)

383. *Hydaticus sticticus*, Leach. *Dytiscus sticticus*, Fabr.

Hab. Barbadoes.

- 383 A. *Dytiscus limbatus*, Fabr. fœm.

Hab. China.

Mus. Brit.

384. Larva of *Dytiscus marginalis*.

Fig. Roesel, *Insect. Aquat.* ii. *tab.* i. *fig.* 5. 6. 7.

Hab. Europe ; in fresh waters.

(Staphylinidæ.)

385. *Staphylinus olens*, Fabr. The Great Rove-beetle.

Fig. Panz. *Faun. Insect. Germ. fasc.* 27. *fig.* 1.

Hab. Europe ; at the roots of trees, and under stones. The ova of this species are remarkable for their great size.

(Buprestidæ.)

386. *Buprestis gigantea*, Fabr. The Great Buprestis.

Fig. Oliv. *Ins.* 32. *pl.* 1. *fig.* 1. a. b. Merian, *Insects of Surinam*, *tab.* i. lowest figure ; perfect insect and larva.

Hab. America and Asia.

The larva resides near the roots of plants ; and when fully grown, lies dormant for some time in a small cavity beneath the surface of the earth, where it undergoes its metamorphoses.

387. *Buprestis ignita*, Linn. Fabr. Flaming Buprestis.

Fig. Oliv. *Ins.* 32. *pl.* 4. *fig.* 33.

Hab. The East Indies.

388. *Buprestis* ——.

An elegant little specimen ; in length six lines, with four round spots on

each elytrum reflecting gold and green; one situated at the base, the second and third on a line above the middle, the fourth a little below the middle of the elytrum.

Hab. ———

389. *Buprestis Chrysis*, *Fabr. Oliv.*

Fig. Oliv. Ins. 32. *pl.* 2. *fig.* 8. a. d. e; and *pl.* 6. *fig.* 52. b. Shaws, Nat. Miscell. xxiv. *pl.* 1060, where it is called Chestnut-shelled Indian *Buprestis*: but *Buprestis castanea*, to which this name ought properly to apply, has a blackish body, whereas the *Buprestis Chrysis* has a brilliant golden-green body.

Hab. India.

390. *Buprestis sternicornis*, *Linn. Fabr.*

Fig. Oliv. Ins. 32. *pl.* 6. *fig.* 52. a.

Hab. India.

391 J. B. *Buprestis duodecim-maculata*, *R. O.*

B. atra, *pollinosa*; *elytris atris*, *maculis sex testaceis*.

Length of body sixteen lines.

Body elongated, subtriangular, tapering posteriorly, inferiorly slightly pubescent, superiorly strewn over or painted, as it were, with a white powdery substance. *Head* grooved down the middle between the eyes. *Antennæ* dark at the base, of a lighter colour at the apex. *Thorax* black, with testaceous sides, the anterior margin canaliculate, indented laterally, posteriorly, and down the middle. *Elytra* black and shining, where they are not obscured by the white powder; bases impressed with points, from which punctuated furrows are continued a short way down the elytra; sides canaliculate for about half their length; apices unarmed: they have each six testaceous maculæ, one, namely, at the humeral angle of a crescent shape, one irregularly transverse over the scutellum, the third and fourth on the same transverse line a little before the middle of the elytra; the fifth, behind the middle, transverse, and extending nearly but not quite to the suture; the sixth also transverse, and then continued along the margin of the elytrum to its apex. Post-pectus and feet black.

Hab. New Holland.

(Elateridæ.)

391 A. *Elater noctilucus*, *Linn. Fabr.* The Fire-fly.

Fig. Oliv. Coleopt. ii. 31. *pl.* 2. *fig.* 14.

Hab. Several fine specimens from the Hooghly river, Bengal. Sent from India by Mr. Lecos, to the

Donor, Sir Everard Home, Bart.

A strong light is thrown out from the two spots on the thorax, as well as from two others concealed by the elytra.

“On dissecting the organs of light on the *Elater noctilucus*, I found that there is a soft yellow substance, of an oval figure, lodged in the concavity of the yellow spots of the corselet, which parts are particularly thin and transparent in this species. This substance is so remarkably close in its structure, that at first view it appears like an inorganic mass; but with a lens it is readily perceived to be composed of a great number of very minute parts or lobules closely pressed together. Around these oval masses the interstitial substance of the corselet is arranged in a radiated manner, and the portion of the shell that immediately covers the irradiated substance, is in a certain degree transparent, but less so than that which covers the oval masses: it is therefore probable that the interstitial substance in this situation may be endowed with the property of shining.”

Macartney, On Luminous Animals, Phil. Trans. 1810.

(Lampyridæ.)

391 B. *Telephorus* —, *Schæff. Leach.* *Cantharis* —, *Linn. Fabr.*

A small species, called the “Smaller Fire-fly of Bengal” by the

Donor, Sir Everard Home, Bart.

Hab. These specimens are from the coast, Bengal.

391 C. *Lampyris* —.

A female, two-thirds of an inch in length; called the “Glow-worm of Botany Bay” by the

Donor, Sir Everard Home, Bart.

(Cleridæ.)

392 J. B. *Clerus fasciculatus*, *Schreibers.* *Attelabus*, *Linn.*

Fig. *Linn. Trans.* vi. *pl.* 20. *fig.* 6.

Hab. New Holland.

(Geotrupidæ.)

393. *Geotrupes stercorarius*, *Latr. Genera Insect.* ii. p. 92. *Scarabæus stercorarius*, *Linn. Fabr.* Dung-chaffer.

Fig. Panz. Faun. Ins. Germ. *fasc.* 49. *fig.* 1.

Hab. Europe, "boring cylindrical holes beneath the dung, and flying about in the dusk of the evening." *Samouelle.*

(Scarabæidæ Latr.)

394. *Dynastes Hercules*, *MacL. Kirby, Linn. Trans.* xiv. p. 567. *Scarabæus Hercules*, *Latr. Linn.* *Geotrupes Hercules*, *Fabr.* Great Hercules Beetle.

Fig. Oliv. Entom. i. no. 3. *pl.* 1. *fig.* a. b. d. *mas.* *pl.* 23. *fig.* 1. c. *fæm.* Shaw, Nat. Miscell. i. *pl.* 34.

Hab. Tropical America.

395. *Dynastes Hercules.*

396. *Dynastes Hercules.*

This specimen measures six inches from the end of the thoracic horn to the anus. See Roesel, Ins. ii. Scarab. i. *tab.* A. *fig.* 1. iv. *tab.* v. *fig.* 3.

- 396 A. Larva of *Dynastes Hercules.*

Mus. Heaviside, No. 1928.

397. *Dynastes Gideon.* *Scarabæus Gideon*, *Latr. Linn.* *Geotrupes Gideon*, *Fabr.*

Fig. Roesel, Ins. ii. Scarab. i. *tab.* A. *fig.* 5.

Hab. Sumatra.

- 397 A. *Dynastes Pan*, *MacL.* *Scarabæus Pan*, *Latr. Linn.* *Geotrupes Pan*, *Fabr.*

Hab. India. A male and female specimen.

Donor, Mr. Chambers.

398. *Dynastes* —, *fæm.*

Hab. Sumatra. Length of body, one inch eight lines.

399. *Dynastes* —, *fæm.*

Hab. Sumatra. Length of body, two inches.

400 J. B. *Dynastes* ———.

Hab. South America.

401. *Oryctes Silenus*, *Illiger*, *Latr.* *Geotrupes Silenus*, *Fabr.*

Hab. South of Europe. The specimen appears to be an immature or newly excluded imago. The elytrum or wing-cover of one side is removed to expose the delicate transverse-folded wing beneath.

402. *Trichius* ———.

Hab. Barbadoes.

403. *Trichius viridulus*, *Fabr.*

Fig. Oliv. *Ins.* i. 6. 63. 76. *pl.* 9. *fig.* 86.

Hab. "In India. *Mus. D. Hunter.*" *Fabr. Entom. Syst.* i. b. p. 122.

404. *Cetonia aurata*, *Fabr.* *Scarabæus auratus*, *Linn.* Green Garden Beetle or Rose-chaffer.

Fig. Shaw, *Nat. Miscell.* xviii. *pl.* 758.

Hab. Europe, "not uncommon during the hottest part of summer, frequenting various plants and flowers. Its larva is commonly found in the hollows of trees, or among the loose dry soil at their roots. It remains about three years before it changes to a chrysalis," out of which in a short time afterwards emerges the perfect insect.

405. *Gymnetis nitida*, *MacL.* *Cetonia nitida*, *Fabr.*

Fig. Oliv. *Ins.* *pl.* 3. *fig.* 16., *pl.* 7. *fig.* 56.

Hab. Carolina. South America.

In the same glass, below this specimen, is

Phanæus Vindex, *MacL.*

Hab. ———

406 J. B. *Anoplognathus Donovanii*, *Leach.* "New Holland *Cetonia*,"

Dr. Shaw. *fœm.*

Fig. Donovan, *Ins. of New Holland.*

Hab. New Holland.

407. Pupa of a *Scarabæus*.

408. Pupa of a *Scarabæus*; less advanced.

409. Pupa of a *Scarabæus*.

410. Pupa of a Lamellicorn Beetle, probably a *Cetonia*.

411. *Melolontha vulgaris*, *Fabr.* *Scarabæus Melolontha*, *Linn.* The Common Cock-chaffer.

Fig. Oliv. Entom. i. 5. *pl.* 1. *fig.* 1.

Hab. Europe. Common on trees in May and June.

See *Gallery*, No. 619. Digestive canal of this species.

412. Larva of *Melolontha vulgaris*.

The larvæ of the Cock-chaffer feed on the roots of grass and corn. The complete insect makes its appearance towards the commencement of the summer of the fourth year from the period of its exclusion from the egg.

413. *Melolontha vulgaris*.

The larva laid open behind to show the *corpus pinguosum* and the intestines distended with food.

(*Lucanidæ.*)

414. Larva of *Lucanus Cervus*.

The skin is dissected from one side.

415. Larva of *Lucanus Cervus*.

It has been taken in the act of casting its skin, part of which is removed on one side to show the soft new-formed integument beneath. This process of shedding the exuviae takes place in most larvæ three or four times before they enter the pupa state. For the exceptions to this rule, and an account of the process, see Kirby and Spence, *Intr. to Entom.* iii. p. 191.

416. *Lucanus Cervus*, *Linn. Fabr. mas.* Stag-Beetle.

Fig. Oliv. Entom. i. *pl.* 1. *fig.* 1. a. b. c. d.

Hab. Europe; in decayed wood.

417 J. B. *Lamprima ænea*, *Latr.* *Lethrus æneus*, *Fabr.* *Lucanus æneus*, *Schreibers.* *Mas*, var. *paulo minor, et color viridi-æneus cum nitore aureo pulcherrimo.*

Fig. Linn. Trans. vi. *tab.* xix. *fig.* 9—11.

Hab. New Holland? "A beautiful specimen of this rare and singular species."

- 417 A. *Passalus interruptus*, *Fabr. Latr.*? *Lucanus interruptus*, *Linn.*

Fig. DeGeer, *Mém. Ins.* iv. *pl.* 19. *fig.* 13.

Hab. America.

(*Pimelidæ.*)

418. *Moluris striata*, *Latr.* *Pimelia striata*, *Fabr.*

Fig. Olivier, *Entom.* iii. *no.* 59. *pl.* 1. *fig.* 11.

Hab. Africa.

419. *Moluris striata.*

This specimen has a round yellow spot on the middle of the ventral surface of the abdomen.

(*Helopidæ.*)

- 420 J. B. *Helops*, *Fabr. Latr.*

Hab. ———

(*Curculionidæ.*)

421. *Entimus festivus*? *Curculio festivus*, *Fabr. Entom. Syst.* i. b. *p.* 476?

Hab. Barbadoes.

Length of body one inch. *Rostrum* short; *thorax* brown above, dotted with white, and with white sides; *elytra* white, with brown sutures and margins, and four longitudinal brown lines, the exterior line the shortest, the one next to it branching into two, half-way down the elytrum, the other two of nearly equal length but not extending to the apex; *abdomen* white; legs brown, with unarmed thighs.

422. *Entimus festivus*?

The same with or allied to the preceding, but rather smaller.

423. *Curculio longipes*, *Fabr.*

Fig. Oliv. *Ins.* 83. *pl.* 15. *fig.* 191.

Hab. Cape of Good Hope.

424. *Rhina barbirostris*, *Latr.* *Lixus barbirostris*, *Fabr. Syst. Eleut.* ii. *p.* 501.

Fig. Oliv. *Entom.* *pl.* iv. *fig.* 37 a. b.

Hab. Africa and India.

(*Prionidæ.*)

425. *Prionus maxillosus*, *Fabr.*

Fig. Drury, Ins. i. tab. xxxviii. *fig.* 3. *Cerambyx maxillosus*.
Hab. America.

426. Larva of a Prionus.

See *Gallery*, No. 3059. 3060. 3061. Larva and pupæ of *Prionus cervicornis*, the Stag-horned Capricorn Beetle.

427. Larva of a Prionus: *an cervicornis*?

428. Larva of an exotic Prionus.

Length of body four inches; of a pale yellow colour; segments diminishing in breadth, but increasing in length from the head to the tail.

(*Cerambycidae*.)

429. *Lamia Ædificator*, *Fabr.*

Hab. India.

430. *Monochamus*, *Megerle*. *Lamia*, *Fabr.*

An immature specimen of the imago.

430 A. *Stenocorus trilineatus*, *Fabr. Syst. Entom.* 1775. p. 179. *sp.* 6.

Fig. Drury, Ins. i. *pl.* 41. *fig.* 1. *Cerambyx trilineatus*.

Hab. West Indies; feeds on the Cocoa-nut tree.

Donor, Mr. S. Stutchbury.

430 B. *Stenocorus trilineatus*.

Donor, Mr. S. Stutchbury.

430 c. *Macropus pictus*, *Leach. Thunberg*. *Cerambyx longimanus*,
Linn. mas. Painted Capricorn Beetle.

Fig. Leach, Zool. Miscell. ii. *pl.* 89.

Hab. South America. The male of this species is remarkable for the disproportionate length of the fore-legs.

Donor, Sir Everard Home, Bart. 1813.

431 J. B. Pupa of an exotic *Cerambyx* (*Linn.*).

432. Larva of a *Cerambyx* (*Linn.*).

433. Exotic Larva. *Cerambyx*, *Linn.*

Length of body three inches; the first three segments with alternate bands of brown and yellow; bands of the same colour, but much fainter, on the remainder.

(Chrysomelidæ.)

434. *Megalopus* —, *Fabr.*?

The specimen wants the head. *Elytra* semitransparent, margins folded inwards towards the apex, and covering the sides of the post-pectus, but not embracing the abdomen; *post-pectus* gibbous and projecting; posterior *femora* remarkably incrassated, kidney-shaped, the concavities looking inwards, and armed at their extremities with three spines; *tibiæ* of the same pair curved and ending in a spine. Body and thighs of a light brown colour; *tibiæ* and tarsi black.

435. *Timarcha tenebricosa*, *Leach.* *Chrysomela tenebricosa*, *Fabr.*

Fig. Schæf. *Icon. pl.* 126. *fig.* 1.

Hab. The plants of Southern Europe.

(Fam. dub.)

436 J. B. Larva of a Coleopterous insect.

Length of body one inch and a half. Colour a reddish brown; smooth.

437. Coleopterous Larva; probably of *Dermestes Lardarius*.

438 J. B. Larva of a Coleopterous insect in its case.

The case is composed of pieces of twigs, from half an inch to an inch in length, cemented together by a dark-brown substance the thickness of pasteboard; the length of the whole case six inches, the breadth in the middle one inch.

The larva is of a deep yellow colour, and about half the length of the case, to which it is attached at one end by its tail, its head hanging loose in the middle.

Hab. New Holland.

439 J. B. Larva, Pupa, and Pupa-case of a Coleopterous insect.

The pupa-case, in length one inch and three-fourths, is oblong, rounded at both ends, of the thickness of parchment, and of a deep brown colour, with an irregular surface, shining and reflecting grayish silvery tints.

The larva is one inch and a half in length, and appears to be in the state preparatory to casting its skin.

Hab. New Holland?

440 J. B. Larvæ of a Coleopterous insect.

Two inches in length, black, rugose, hirsute; with an incurvated and pointed tail.

441. Larva of a Coleopterous insect.

Clothed with short and thick reddish-brown hair, like fur.

441 A. Larva of a Coleopterous insect.

Six inches in length, clothed with abundant long, silky, reddish-brown hairs.

Mus. Leverian. no. 4150.

442. Cell of a Coleopterous pupa.

ORDO DERMAPTERA. *Kirby.*

443 J. B. Larva of *Forficula gigantea*.

ORDO ORTHOPTERA. *Kirby.*^a

444. *Blatta americana*, *Linn. Fabr.* American Blatta, or Common Cockroach.

Hab. America. It has now become naturalized in Europe.

445. *Blatta orientalis*, *Linn. Fabr.* Oriental Blatta.

Fig. Geoff. Ins. i. *pl.* 7. *fig.* 7.

See *Gallery*, No. 616. Digestive canal displayed.

Hab. The specimen is from Sumatra. This species is also naturalized in Europe, and is called the Cockroach.

446. *Blatta nivea*, *Linn. Syst. Nat.* ii. 688. 5. Snow-white Blatta.

Fig. Drury, Ins. ii. *pl.* 36. *fig.* 1.

Hab. America.

447. *Blatta dilatata*, *R. O.*

B. ferrugineo-fusca albido-limbata, thorace explanato, supra punctis duobus impresso.

A broad, depressed species^b. Length of body two inches; prothorax anteriorly emarginate, with remarkably dilated sides; legs reddish-brown.

Hab. New Holland. The specimen, a female, apterous.

^a The original order of Olivier included the preceding.

^b In Catesby's "Carolina" (ii. *pl.* 10. *fig.* 6.) is a figure of a *Blatta* nearly resembling this species in form; but there is no appearance of a white margin in the Plate, nor any mention of it in the description.

448 J. B. *Blatta dilatata*.

Also a female, but not fully grown.

Hab. New Holland.

449 J. B. *Blatta dilatata*.

A larva, scarcely half-grown.

Hab. New Holland.

450. *Blatta* ———.

A pupa, with rudimentary elytra.

451. Larva of a *Blatta*.

(*Mantidæ*.)

451 A. *Phasma cornutum*, *Guilding*. *Phasma filiforme*, *Lichtenstein*.

Mantis filiformis, *Fabr.* Filiform Spectre Insect.

Fig. Browne, *Hist. of Jamaica*, *pl.* 42. *fig.* 5. *Linn. Trans.* xiv. *pl.* 7. *fig.* 1—10.

Hab. "Frequentissimè in Americæ mediæ insularumque oppositarum dumetis, ubi ramulos emortuos æmulat, hostesque sic decipit. Noctu folia avidè consumit. Ambulat motu omnino vacillanti: dum quiescit pedes anticos capiti applicat, antennisque teneras defendit. Vitæ tenax. Succī virides vel pallidi." *Rev. L. Guilding, Linn. Trans.* xiv. *p.* 138.

Neither in the specimen, nor in the figures quoted, are the first pair of legs quite so long as the body; *fere* or *prope* therefore should precede the *longitudine corporis* of the character given by Lichtenstein^a.

Donor, Thomas Keate, Esq.

452. *Phasma Ferula*, *Licht.* *Mantis Ferula*, *Fabr.* Walking-stick Mantis.

Fig. Roesel, *Ins.* ii. *Gryll*, *tab.* xix. *fig.* 10.

Hab. South America. The extremities of the humeri and femora have small spines.

^a Lichtenstein, who knew only the male of this species, suspects that another *Phasma*, described as a distinct species (*Ph. Ramulus*) may prove to be but the female. The Rev. Lansdown Guilding, of the island of St. Vincent, has shown that the supposition is in part correct; but he describes the female of *Phasma filiforme* as identical with the *Phasma cornutum* of Lichtenstein (*Linn. Trans.* vi. *p.* 10. no. 3.), and accordingly proposes to retain this as the *nomen triviale* of the species; objecting to the appellation *filiforme* as applicable almost alike to all the males of the apterous Phasmata, but at variance with the form of the female of this species.

452 A. *Phasma angulatum*, *Licht.* *Mantis angulata*, *Fabr.*

Length of body seven inches two lines. Two spines on the posterior part of the first two and the last abdominal segments; numerous spines on the back of the thorax.

453. *Phasma angulatum*?

A specimen of equal length with the preceding, but with a much thicker body. The spines on the dorsum of the thorax are few and small; there are none on the abdominal segments; but with these differences it partakes, with the preceding specimens, of all the characters of *Mantis angulata*, *Fabr.*

454. *Phasma angulatum*? in its pupa state (or *Phasma Gigas*).

455. *Phasma 2-spinosa*. *Mantis 2-spinosa*, *Fabr. Syst. Entom.* 1775.
p. 274. n. 4.

Mus. Dom. Hunter.

Very probably the identical specimen described by the great entomologist, although the characters "*Caput viride, thorax viridis, dorso flavescens, elytra viridia margine exteriori flavo, alæ rufescentes, margine exteriori viridi*" are now, after fifty years maceration, lost, and the colours have sunk into a dull uniform brown.

456. Larva of *Phasma Gigas*.

457. Larva of *Phasma lateralis*, *Licht.* *Mantis lateralis*, *Fabr.*

Fig. Stoll, *Mant. tab. x. fig. 36. 37.*

Hab. Brasil.

457 A. *Phyllium brevicorne*, *Latr.* *Mantis siccifolia*, *Linn.* The Short-horned Walking-leaf Insect.

Fig. Donovan, *Hist. of the Insects of India, fasc. 8. pl. 3.^a*

Mus. Brookes. See *Catal. no. 27 v.*

458. *Mantis precaria*, *Fabr. Entom. Syst. 2. p. 20. no. 32.* *Lichtenstein, Linn. Trans. vi. p. 26. no. 19.*

* The figure given by Dr. Shaw in the *Naturalist's Miscellany*, iv. pl. 119. is not the *Mantis siccifolia* of Linnæus (*Mus. Lud. Ulric. p. iii.*), unless the shortness of the antennæ be a sexual variety merely, but is the insect which Lichtenstein has described in the *Linnæan Transactions*, vi. p. 17, (*Phasma citrifolium*), figured in *Roesel, Locusta Indica, tab. xvii.*, and distinguished from the preceding species by its setaceous elongated antennæ.

Fig. Stoll, Mant. *pl.* 17. *fig.* 62.

Hab. America. The colour has nearly disappeared from this specimen, and the spirit, viewed against a white surface, has a slight green tinge; the single ferruginous spot on each elytrum remains.

458 A. *Mantis precaria.*

Hab. Demerara. A more recent specimen, with the colours consequently more perfect.

Donor, Sir Everard Home, Bart.

459 J. B. *Mantis quadrimaculata, R. O.*

Length of body four inches and a half. Antennæ setaceous, half the length of the thorax; eyes prominent, unarmed; thorax trihedral, serrate laterally, for a short distance from the head; elytra and wings of equal length, extending little more than half way down the abdomen, the former marked with two dark spots; colour (lost in the specimen by long maceration in spirits).

Hab. New South Wales.

460. *Mantis Simulacrum, Fabr. Licht.*

Fig. Stoll, Mant. *tab.* xii. *fig.* 49.

Hab. India.

461. *Mantis oratoria, Fabr. Ent. Syst.* 2. *p.* 20. *n.* 31. ? *Licht. in Linn.*

Trans. iv. *p.* 28. *n.* 26. *mas.*

Hab. Throughout the torrid and temperate zones.

462. *Mantis* ———.

Allied to *Mantis oratoria*; but the colours have disappeared.

463 *Mantis* ———.

To which Dr. Shaw has given the synonym *filiformis* of Fabricius, which is a *Phasma* with unarmed cubitus, whereas this is a true *Mantis* with the spined cubitus, differing however from the *Mantis Filum* of Lichtenstein in having wings.

(*Achetidæ.*)

463 A. *Gryllotalpa vulgaris, Latr. Acheta Gryllotalpa, Fabr. Gryllus Gryllotalpa, Linn.* The Mole-cricket.

Fig. Panz. Faun. Insect. Germ. *fasc.* 88. *tab.* 5.

Hab. Europe: burrowing in the soil of gardens and cultivated places.

When, in these situations, the young plants are observed to droop and die without any obvious cause, they may be found, on carefully removing them from the soil, to have had their roots divided. This act of the Mole-cricket renders it a great pest to gardens; but there is some doubt whether the roots of plants constitute its food, or are only detached when they happen to obstruct its route in search of worms or insects.

For the means of destroying it see "Nouveau Dict. d'Hist. Nat., art. *Courtilière*.

Donor, Mr. Clift.

464. *Gryllotalpa vulgaris*, *mas*.

One wing is expanded.

464 A. *Gryllotalpa vulgaris*, *mas*.

Donor, I. P. Vincent, Esq.

465. *Gryllotalpa vulgaris*.

A female impregnated. The ova are deposited in June and July in round cavities, six or seven inches below the surface of the ground.

466. Pupa of *Gryllotalpa vulgaris*.

466 Δ. *Acheta domestica*, *Fabr.* House-cricket.

Fig. Panz. Faun. Ins. Germ. *fasc.* 88. *pl.* 6. *mas*.

Hab. Europe, in houses, generally in the neighbourhood of the kitchen chimney. The note of the Cricket proceeds from the male only, and is produced by rapid friction of the elytra;—like the tick of the Death-watch (*Anobium*, F.), it is indicative of sexual propensities.

Donor, Sir Wm. Blizard, 1818.

467. *Acheta domestica*.

A female impregnated. Observe the length of the ovipositor.

Fig. Panz. Faun. Ins. Germ. *fasc.* 88. *pl.* 7.

468 J. B. Pupa of an *Acheta*, *affinis domesticæ*.

469. *Gryllus monstrosus*, *Drury*, *Latr.* *Acheta monstrosa*, *Fabr.*

Fig. Drury, Ins. ii. *pl.* 43. *fig.* 1. 2.

470. *Gryllus monstrosus*.

The elytra unfolded to show their length.

471. *Gryllus monstruosus*.

A specimen of a lighter colour than the preceding.

472. Larva of *Gryllus monstruosus*.

The trophi or instrumenta cibaria are displayed in this specimen.

473. Larva of a *Gryllus*: *an monstruosus*?474. Larva of a *Gryllus*, *affinis præcedenti*, *fæm*.

(*Acrididæ*.)

475. *Acrida viridissima*, *Kirby*. *Locusta viridissima*, *Fabr. Latr.*

Fig. Roesel, *Insect. ii. tab. x. xi.*

Hab. Europe.

476. *Acrida*^a *femorata*. *Locusta femorata*, *Fabr.*

Fig. Stoll, *Sauterelles à Sabr. tab. vi. a. fig. 22. p. 16.* *Sauterelle à larges cuisses.*

Hab. Tranquebar, *Stoll*; the specimen is from Sumatra. The crenate membranaceous margins of the femora are ciliate.

477. *Acrida reticulata*. *Locusta reticulata*, *Fabr.*

Front part of the head granulate, vertex acuminate, occiput rounded, smooth; prothorax granulate above; the ovipositor, being an inch in length, does not seem to accord with the term "cnsis brevis" of Fabricius; but, this circumstance excepted, the other characters of the specimen agree with those of *Locusta reticulata*, *Fabr. Entom. Syst. ii. p. 40. sp. 28.*

Hab. Guadaloupe.

478. *Pterophylla myrtifolia*, *Kirby*. *Locusta myrtifolia*, *Fabr.*

Fig. Drury, *Ins. ii. pl. 41. fig. 2.*

Hab. America.

479. *Pterophylla myrtifolia*.480. Pupa of an *Acrida*, *Kirby*.481. *Truxalis nasutus*, *Fabr.* *Gryllus nasutus*, *Linn.*

Fig. Roesel, *Locusta Indica*, *Præf. tab. iv.*

Hab. Sumatra.

^a See Zool. Journal, i. p. 429.

482. *Truxalis nasutus*.

483 J. B. *Truxalis brevicornis*, *Fabr.*? *Gryllus brevicornis*, *Linn.*

Amæn. Acad. vi. p. 398. n. 37.

Fig. DeGeer, Ins. iii. tab. 14. fig. 7. Acridium ensicorne.

Hab. Tropical America.

484 J. B. *Truxalis brevicornis*, *Fabr.*?

(*Locustidæ.*)

484 A. *Locusta migratoria*, *Kirby.* *Acridium emigratorium*, *Latr.*

Gryllus migratorius, *Linn. Fabr.* Migratory Locust.

Fig. Roesel, Ins. Gryll. tab. xxiv.

Hab. "In Tartaria, inde migrans variis annis in Europam, destruens vegetabilia omnia." Fabr. Stragglers have reached our own coasts, but, happily, they are rare visitors.

Donor, Henry Salt, Esq. 1811.

484 B. *Locusta migratoria.*

A larger specimen.

Donor, Henry Salt, Esq. 1811.

485. Pupa of *Locusta migratoria.*

The oral organs displayed.

486. Larva of *Locusta morbillosa.* *Gryllus morbillosus*, *Linn. Fabr.*

487. Larva of *Locusta morbillosa*, a little more advanced.

488. Pupa of a large *Locusta.*

489. *Locusta morbillosa.*

Fig. Roesel, Locusta Indica, tab. xviii. fig. 6.

Hab. Sierra Leone.

490. *Locusta microptera.* *Acridium micropterum*, *Latr.* Short-winged Locust.

Fig. Palis. Beauv. Insect d'Amér. et d'Afric. Orthopt. tab. iv. fig. 4.

Hab. Southern provinces of the United States.

490 A. *Locusta Dux*, *Kirby.* *Acridium Dux*, *Latr.*

Fig. Drury, Ins. ii. pl. 44.

Hab. Tropical America.

Donor, Sir William Blizard, 1811.

- 490 B. *Locusta serrata*. *Acridium serratum*, *Oliv.* The Saw-crested Locust.

Hab. Abyssinia.

Donor, Henry Salt, Esq.

ORDO HEMIPTERA.

(*Cimicidæ*.)

- 491 J. B. *Pentatoma Capensis*, *Oliv.* *Cimex valgus*, *Fabr. Syst. Ent.*
p. 708. n. 54.

Fig. *Encycl. Méthod. Ins. pl.* 124. *fig.* 1.

Hab. Cape of Good Hope.

492. *Pentatoma femoratum*, *Oliv.* *Cimex femoratus*, *Fabr. Syst. Ent.*
p. 708. n. 55.

Hab. India.

- 493 J. B. *Reduvius regalis*, *Latr.* *Cimex regalis*, *Fabr. Syst. Ent.*
p. 697. n. 3.

Hab. New Holland.

494. *Reduvius serratus*, *Fabr.* *Cimex cristatus*, *Linn.*

Fig. *Drury, Ins. ii. pl.* 36. *fig.* 6. *Cimex carinatus*. *Rømer, Genera Insect. tab. x. fig.* 12.

Hab. Tropical America.

(*Cicadiadæ*.)

- 494 A. *Cicada plebeia*, *Linn.* The Common Cicada.

Fig. *Shaw, Nat. Miscell. iii. pl.* 10.

Hab. Warmer parts of Europe.

Donor, Mr. R. Owen.

- 495 J. B. *Cicada Australasiæ*, *Donovan.*

Fig. *Don. Ins. of New Holland.*

Hab. New Holland.

- 496 J. B. *Cicada Australasiæ.*

This is the species noticed by Dr. Shaw in the *General Zoology* (vi. *part* i.

p. 152.), and called *Cicada viridis*, a name which had already been applied by Fabricius to another species, a native of Europe.

These insects have been noted in almost every age for the loud tones which they emit; the organ of sound is peculiar to the male. See Kirby and Spence, *Introd. to Entom.* ii. p. 405.

497. *Cicada septendecim*, *Oliv.* *Tettigonia septendecim*, *Fabr.* Seventeen-years Cicada.

Fig. *Phil. Trans.* liv. p. 65. *tab.* viii.

498. *Cicada septendecim*; *mas et fœm.*

Hab. "Is seen annually in Pennsylvania; and at certain periods, of fourteen or fifteen years distance, they come forth in such great swarms, that the people have given them the name of *Locusts*." *Collinson in Phil. Trans.* liv. Kalm remarks (*Acta Holm.* 1756.), that the periods of their great abundance occur at intervals of seventeen years; from which circumstance the trivial name is derived.

499. Pupa of the *Cicada septendecim*.

"About the latter end of April these *Cicadæ* come near the surface: this is known by the hogs routing after them. They creep out of the ground, near the roots of trees, in such numbers, that in some places the earth is so full of holes, it is like a honey-comb. Their first appearance is an hexapode (an ill-shapen grub) with six feet. This is their middle or nymph state; they creep up everything near them, and fix their claws fast on the shrubs and bark of trees: then the skin on its back bursts open, and the fly comes forth, disengaging itself by degrees, leaving the case or exuviae behind in the exact shape in which it was before occupied." *Collinson in Phil. Trans.* liv. p. 65.

500. Pupa of *Cicada splendidula*, *Oliv.*

501. *Fulgora candelaria*, *Linn. Fabr.*

Fig. Roesel, *Ins.* ii. *tab.* xxx. *fig.* 1. 2. 3.

Hab. China.

- 501 A. *Fulgora lanternaria*, *Linn.* The Lanthorn Fly.

Fig. Roesel, *Ins.* ii. *tab.* xxviii. xxix.

Hab. The Tropics.

Donor, Sir Everard Home, Bart.

ORDO NEUROPTERA.

(Libellulidæ.)

502. *Libellula* —, *Linn. Fabr.*

Fig. Reaumur, *Mém. Ins. tab. vi. pl. xxxv. fig. 2.*

Hab. Europe.

503. Larva of a *Libellula*.

(See the description of the extraordinary conformation of the mouth of these larvæ in Kirby and Spence, *Introd. to Entom.* iii. p. 126.)

504. *Agrion Virgo*, *Fabr.* *Libellula Virgo*, *Linn.*

Fig. Roesel^a and Panzer^b have each figured varieties of this species, but the loss of colour in the specimen precludes a reference.

Hab. Indigenous.

(Ephemeridæ.)

504 A. *Ephemera vulgata*, *Linn. Fabr.*

Fig. DeGeer, *Mém. Ins. ii. pl. 16. fig. 1.* *Ephemera vulgata, cauda trisetæ, alis nebuloso-maculatis.*

Hab. Throughout Europe, near rivers and pools. The specimens were collected in Hampshire.

Donor, William Long, Esq.

(Myrmeleonidæ.)

505. *Myrmeleon formicarium*, *Linn.* Ant-Lion.

Fig. Reaumur, *Mém. Insect. vi. tab. xxxiv. fig. 7.*

Hab. Europe.

The singular habits of the larvæ of this species have attracted peculiar notice. See Latreille, *Hist. Nat. des Crust. et des Ins.* xiii. p. 23. Kirby and Spence, *Introd. to Entom.* i. p. 425.

(Hemerobidæ.)

505 A. *Termes fatale*, *Linn.^c Fabr.*

^a *Ins. ii. Aquat. tab. ix. fig. 7.* Var. a. *Latr.*

Ditto ——— *fig. 6.* Var. c. *Latr.*

Ditto ——— *fig. 5.* Var. d. *Latr.*

^b *Faun. Ins. Germ. fasc. 79. pl. 18.* Var. b. *Latr.*

^c *Termes fatale* of Linnæus includes many distinct species. See Latreille, *Gen. Crust. et Ins.* iii. p. 203.

Numerous fine specimens of Termites, from Africa, with the wings perfect.

Donor, Mr. Clift.

506. *Termes fatale*.

A female; the two lower wings have fallen off, and lie at the bottom of the bottle.

507. *Termes fatale*.

A female taken after the fall of the wings; these are acquired a short time previous to the development of the reproductive energy, and fall off soon after.

508. *Termes fatale*.

In a similar state, the abdomen beginning to enlarge.

509. *Termes fatale*.

A female impregnated.

509 A. *Termes fatale*.

A female with the abdomen in a full state of distension. The disproportionate size of this part is very remarkable. The ovaries unravelled may be seen in the *Gallery*, No. 2864.

Donor, B. Clifton Henderson, Esq. M.D.

510. *Termes*.

Three specimens of a species distinct from the preceding: to one of these some young ones are attached.

See the history of these singular insects in *Phil. Trans.* 1781. by Mr. Smeathman, and a comprehensive account drawn from that and other sources in Kirby and Spence, *Introd. to Entom.* ii. p. 32.

ORDO HYMENOPTERA.

(*Evaniadae*.)

511. *Evania*, *affinis Appendigastræ*.

Black with ferruginous petiolate abdomen, and very long hind legs.

Hab. The specimens are from Barbadoes.

(*Ichneumonidae*.)

512. A group of small Ichneumons. (*Cynips*, *Geoffroy*.)

(Cynipsidæ.)

513. An Oak-leaf with twelve galls or nidi of *Cynips Quercus folii*,
Linn. Fabr. Latr. Diplolepis Quercus folii, Geoffroy, ii.
pl. 15. fig. 2.

Some of the galls are opened and the ova exposed. The singular mechanism of the ovipositor, by which the female insinuates her eggs under the coverings of plants, is described by Reaumur, *Mém. sur les Insectes*, iii. p. 483. *pl. 46 & 55.*

These appearances in vegetables, and the cells produced in the hides of cattle by the lodgment of the larvæ of *Æstri*, were often adduced by Hunter to illustrate his opinions on the nature of the inflammatory processes which follow the introduction of foreign bodies into a living organism, according to the possession or want of the vital principle in those bodies. See *On the Blood, &c. p. 208.*

With respect to the galls of vegetables, Hunter, after describing No. 60. 61. Morbid Series, said: "A similar power is observable in vegetables. Here is an oak-leaf which I picked up in my garden: you observe on it seven or eight protuberances exactly circular and uniform. These have been formed by the insertion of the eggs of an insect into the leaf, and I cannot but think that the process would have been very different, if it had been any substance not possessed of the living principle which had been thus inserted." *Parkinson's MSS. Notes*, i. p. 122.

(Chrysidæ.)

514. *Stilbum splendidum, Latr. Chrysis splendida, Fabr.*
Fig. Donovan's Insects of India.
Hab. New Holland, Tranquebar.

(Formicidæ.)

515. *Formica* ———, *Fabr.*
 A group of some small species of Ant, probably British.

(Sphegidæ.)

516. *Pepsis, Latr. Fabr.*
Hab. Sumatra.

517. *Sphex*, *Fabr.*

Hab. ———

518. *Sphex*, *Fabr.*

Hab. ———

(*Scoliadæ.*)

519. *Scolia ciliata*, *Fabr.*

Hab. Spain.

(*Bembecidæ.*)

520. *Stizus speciosus*, *Latr.*

Hab. ———

Mus. Brit.

(*Vespidæ.*)

520 A. *Eumenes petiolata*, *Latr.* *Vespa petiolata*, *Fabr.*

Hab. Malabar.

Donor, Sir Everard Home, Bart.

520 B. *Eumenes conica*, *Latr.* *Vespa conica*, *Fabr.*

Hab. China.

This and the preceding specimen are marked "From New South Wales."

Donor, Sir Everard Home, Bart.

521. *Vespa cincta*, *Fabr. Latr.*

Fig. Sulz. Hist. Ins. tab. xxvii. fig. 5.†

Hab. Tranquebar; the specimen is from Sumatra.

522. *Vespa affinis*, *Fabr. Latr.*

Hab. This specimen is also from Sumatra.

523. *Vespa Crabro*, *Linn. Fabr.* The Hornet.

Hab. Europe.

524. *Vespa Crabro*; two females.

525. *Vespa vulgaris*, *Fabr.* The Common Wasp.

Hab. Europe.

See *Gallery*, No. 2353. 2354. Male wasp, and male organs of generation.

No. 2920. 2921. Queen wasp, and oviducts.

526. *Vespa media*, *Oliv. Encycl. Méth. Insect. vi. p. 679. no. 48.*

Fig. DeGeer, *Mém. Ins. ii. pt. 2. pl. 27. fig. 2. 3. 4.*

Hab. Europe. Suspends its nest beneath the eaves of dwellings.

527. A small species of *Vespa*.

(*Apidæ.*)

528. *Xylocopa latipes*, *Latr.* *Apis latipes*, *Linn.* The Broad-legged Carpenter-bee.

Fig. Drury, *Ins. ii. pl. 48. fig. 2.*

Hab. China and the East Indies; the specimen is from Sumatra.

See *Gallery*, No. 2595. *Xylocopa violacea*, a female; the oviducts exposed.

529. *Xylocopa Brasilianorum*, *Latr.* Brasil Carpenter-bee.

See *Gallery*, No. 2349. A fine male of this species; the male organs dissected.

530. *Megachile centuncularis*, *Latr.* *Apis centuncularis*, *Linn.* The Leaf-bee.

Fig. Reaum. *Ins. vi. pl. 10. fig. 2. 3. 4. 5. Abeilles coupeuses des feuilles.*

Hab. Europe. The under part of the abdomen being thickly set with short yellow hairs, enables it the better to gather and transport the pollen of flowers.

531. *Megachile centuncularis. fæm.*

The species of *Xylocopa* are solitary bees, and have no neuters or modified females called labourers. In genus *Megachile* the male serves for fecundation only, while the business of nidification and providing for the larvæ is performed by a solitary female. The nest she makes is a small cylindrical cavity excavated in the soil, or in decayed wood, and lined by pieces of leaf (generally the rose- or strawberry-leaf) of an oval shape; an egg and a quantity of farina being deposited here, they are covered by other portions of leaves, which form the floor of another cell, and so the process is repeated four or five times.

532. *Megachile Campanularum*, *Latr.* *Apis Campanularum*, *Kirby.*
The Leaf-bee or Leaf-cutter.

Hab. Common in Europe.

A male; mandibles bidentate.

533. *Anthophora Acervorum*, *Latr. Hist. Nat. des Crust. et des Ins.* xiv. p. 45. ?

Fig. Panz. Faun. Ins. Germ. *fasc.* 78. *pl.* 18.

534. *Bombus terrestris*, *Latr. Fabr.* *Apis terrestris*, *Linn.* The Humble-bee. Two males.

Fig. Linn. Trans. vi. *pl.* 25. *fig.* 8. *mas.*

Hab. Common in Europe.

535. *Bombus terrestris*.

Males, having nearly completed their pupa state.

536. *Bombus terrestris*. Queen Humble-bee.

Fig. Linn. Trans. vi. *pl.* 25. *fig.* 7.

See *Gallery*, No. 2884. Young Queen Humble-bee; the female organs exposed.

537. *Bombus terrestris*. Labourers.

Fig. Linn. Trans. vi. *pl.* 25. *fig.* 9.

The glass contains also *Bombus Hortorum*, and an *Apis*.

538. *Bombus terrestris*.

Group of the larvæ in oval cases; one laid open exhibiting its inhabitant.

The Humble-bee deposits its ova in the cells of a subterranean habitation, commonly to be found in meadows or hedge-rows.

See M. Huber in *Linn. Trans.* vi. p. 214; and Kirby and Spence, *Intr. to Entom.* i. p. 498.

539. *Bombus terrestris*.

Two groups of nidi; some are laid open to expose their contents: a number of larvæ lie at the bottom of the glass, in various stages of growth.

540. Nidi of Humble-bees.

Fig. Linn. Trans. vi. *tab.* 27. The undermost cells are those first formed.

541. Cells with larvæ of Humble-bees.

542. Irregular Alveolæ, hexagonal, pentagonal, quadrilateral, and triangular, forming part of the nest of some social hymenopterous insect.

543. *Apis mellifica*, *Linn. Geoff. Fabr.* The Hive-bee: *mas*, Drone.
Fig. Swammerdam, *Bibl. Nat. tab. xvii. fig. 4.* Reaumur, *Ins. v. tab. xxii. fig. 2.*

Hab. Europe. Occasionally found wild, constructing its nest in hollow trees.

See *Gallery*, No. 2336. Penis of the male bee; No. 2335. 2337. 2340. Testes, &c. "The male bee is considerably larger than the labourers; he is even larger than the queen, although not so long when she is in her full state with eggs: he is considerably thicker than either, but not longer in the same proportion: he does not terminate at the anus in so sharp a point; and the opening between the two last scales of the back and belly is larger, and more under the body, than in the female. His proboscis is much shorter than that of the labouring bee.—He has no sting." *Hunter, Obs. on Bees, Phil. Trans. 1792. p. 173.*

543 A. *Apis mellifica*, *fæm.* The Queen-bee.

Fig. Swammerdam, *Bibl. Nat. tab. xvii. fig. 3.* Reaumur, *Ins. v. tab. xxii. fig. 3.*

See *Gallery*, No. 2889. Oviducts of the queen-bee; and 2887. the same parts fully impregnated.

Below this specimen, and in the same glass, is

Apis mellifica, operaria, Labourer, or Female Non-breeder. *J. H. Phil. Trans. 1792. p. 139.*

Fig. Swammerdam, *Bibl. Nat. tab. xvii. fig. 1.* Reaumur, *Ins. v. tab. xxii. fig. 1.*

"The queen, the mother of all, in whatever way produced, is a true female, and different from both the labourers and the male. She is not so large in the trunk as the male, and appears to be rather larger in every part than the labourers. The tongue of the female is considerably shorter than that of the labouring bee, more like that of the male: however, the tongues of the labourers are not in all of an equal length, but none have it so short as the queen.

"The size of the belly of the female varies very considerably; she is of a different size and shape in the summer to what she is in the winter; and in the winter she has what may be called her natural size and shape: she is upon the whole rather thicker than the labourer; and this thickness is also in the belly, which probably arises from the circumstance of the oviduct being in the winter pretty large, and the reservoir for semen full.

The termination of the belly is rather more peaked than in the labourers, the last scale being rather narrower from side to side, and coming more to a point at the anus. The scales at this season are more overlapped, which can only be known by drawing them out. In the spring and summer she is more easily distinguished: the belly is not only thicker, but considerably longer than formerly, which arises from the increase of the eggs. We distinguish a queen from the working-bee simply by size, and in some degree by colour; but this last is not so easily ascertained, because the difference in the colour is not so remarkable in the back, and the only view we can commonly get of her is on this part; but when a hive is killed, the best way is to collect all the bees and spread them on white paper, or put them into water in a broad, flat-bottomed, shallow, white dish, in which they swim; and by looking at them singly she may be discovered. As the queen breeds the first year she is produced, and the oviducts never entirely subside, an old queen is probably thicker than a new-bred one, unless indeed the oviducts and the eggs form in the chrysalis state, as in the silk-worm, which I should suppose they did. The queen is perhaps of the smallest size just as she has done breeding, for as she is to lay eggs by the month of March, she must begin early to fill again; but I believe her oviducts are never emptied, having at all times eggs in them, although but small. She has fat in her belly similar to the other bees. The queen has a sting similar to the working-bee."

Hunter, ut supra, p. 169. 170.

Donor, Sir William Blizard.

544. *Apis mellifica, operaria.* A Wax-making Labourer.

The wax is secreted in small cells beneath the ventral segments, through the membrane of which it transpires. The specimen exhibits the arrangement of six scales of wax on the abdomen. According to Huber there are two kinds of labourers; *nursers*, which remain in the hive and tend to and feed the young; and *wax-makers*, which go abroad and collect materials for the habitation and support of the community.

545. *Trigona, Latr. Apis, Fabr.*

A group of this genus with very brilliant colours resembling the Chrysidæ.

Hab. ———

545 A. *Trigona, Latr. Apis, Fabr.*

Hab. Four specimens of a very small species from New South Wales.

ORDO LEPIDOPTERA.

(Papilionidæ.)

546. *Pontia Cratægi*, *Fabr.* *Pieris Cratægi*, *Latr.* *Papilio Cratægi*, *Linn.* The Black-veined White Butterfly.

Hab. Europe. "In England it is found in the woods near London; its larva feeds on the white-thorn." *Samouelle, Entomologist's Useful Companion*, p. 236.

547. Pupa of *Papilio Chrysippus*, with the immature or newly excluded imago.

548. *Papilio*.

A smooth larva, one inch and two-thirds in length. Each segment has a black band, as in *Papilio Machaon* (Swallow-tailed Butterfly); but if it belong to that species, it has lost its original green colour.

549. *Papilio*.

A smooth larva, three inches and a half in length, with two small (or retracted) occipital spines, and two long and ciliated caudal spines, allied to the larva figured in Plate 32 of Merian's *Insects of Surinam* (*Satyrys Cassiæ*).

550. *Papilio*?

An exotic smooth larva, four inches long; original colour probably lost; prolegs cuneiform, the edges ciliated.

551. *Papilio*?

A very remarkable and beautiful exotic larva. It is four inches in length, of a pale ferruginous colour, studded with numerous pearl-coloured iridescent specks; with a row of short spines, of the same colour with the body, across each segment.

552. A larva of the same species; colour rather deeper.

See *Gallery*, No. 1302. where this species has been selected for the display of the nervous system.

(Sphingidæ.)

553. *Sphinx* —, *Fabr.*

An imperfect specimen of the imago.

- 553 A. *Acherontia Atropos*. *Sphinx Atropos*, *Fabr.* Death's-head Moth.

Fig. Roesel, *Ins.* iii. *tab.* i. 1.

Hab. The specimen is from Downpatrick, County Down, Ireland. "An unusual number of these insects were observed in various parts of England and Ireland this season: (October 18th, 1825.)" *Note with the specimen.*

Donor, Robert Moore, Esq.

- 553 B. Pupa of *Acherontia Atropos*.

Mus. Brookes. *Catal.* p. 99. no. 2 v.

554. Larva of *Smerinthus ocellatus*, *Latr.* *Sphinx ocellata*, *Linn.*
Eyed Hawk-moth.

555. Larva of *Deilephila Euphorbiæ*, *Ochs.* *Sphinx Euphorbiæ*, *Linn.*
The Spotted Elephant of Collectors.

556. Larva of *Deilephila Euphorbiæ*.

557. Larva of *Sphinx Cœnotheræ*.

Fig. Merian, *Insects of Surinam*, *pl.* 34.

It is remarkable for bearing, in the place of the anal horn, a "callous eye-like plate."

558. *Sphinx*?

Larva with a remarkably conical-shaped head.

- 559 J. B. *Sphinx*?

Larva, allied to the preceding specimen, in the act of casting its skin.

560. *Sphinx*?

A small larva, having just cast its skin.

- 561 J. B. Larva *Sphingis*.

Fig. Shaw, *Nat. Miscell.* xiv. *pl.* 578.

The skin of this larva is thickly covered with small pointed processes, but it is more remarkable for "the singular appearance of the tail or terminal joint of the body, which is so formed as to bear a striking resemblance to a formidable head, with a wide mouth and black prominent eyes." *Shaw, ut supra.*

The specimen is suspended with the head downwards.

562 J. B. Sphinx?

Larva of a very deep green colour, of the same species as the preceding.

563 J. B. Sphinx?

Larva of the same species, apparently soon after a moult; it has lost the lateral black tubercles from the anal segment.

564 J. B. Sphinx?

Larva, probably the same species as the preceding.

565. Sphinx?

Larva, four inches and a half long, of a pale yellow colour, and with a short anal horn.

566. Sphinx?

An exotic larva, allied to the preceding; the skin is beginning to separate from the anterior part of the body.

567. Sphinx?

A large exotic larva, apparently undergoing one of its latest moultings.

568. A small Larva of a Sphinx or Bombyx.

569. A small Larva of a Sphinx or Bombyx.

(*Bombycidae*.)

570. Bombyx, *Fabr.*

Hab. ———

571. Bombyx Mori, *Fabr. Latr.* *Phalæna Mori*, *Linn.* The Silk-worm Moth.

Fig. Reaum., *Ins.* ii. *tab.* v. *fig.* 2.

Hab. "In moro Chinæ. Tempore Imperatoris Justiniani primo in Europa introducta." *Fabr. Syst. Entom.* p. 567.

572. Larva of Bombyx Mori.

573. Bombyx Mori.

Larva, with the skin dissected off one side.

574. Larva of *Cerura Vinula*, *Leach.* *Bombyx Vinula*, *Latr.* *Phalæna Vinula*, *Geoff.* The Puss-moth.

“The insect lately mentioned, the Puss-moth,—is remarkable for its singular forked tail, entirely dissimilar to the anal termination of the abdomen of most other caterpillars. This tail is composed of two long cylindrical tubes, moveable at their base, and beset with a great number of short stiff spines. When the animal walks, the two branches of the tail are separated from each other, and at every step are lowered so as to touch the plane of position; hence we may conclude that they assist it in this motion, and supply the place of hind legs. If you touch or otherwise incommode it, from each of the above branches there issues a long, cylindrical, slender, fleshy, and very flexible organ of a rose colour, to which the caterpillar can give every imaginable curve or inflexion, causing it sometimes to assume even a spiral form. It enters the tube, or issues from it, in the same manner as the horns of snails or slugs. These tails form a kind of double whip; the tubes represent the handle, and the horns the thong or lash, with which the animal drives away the ichneumons and flies that attempt to settle upon it. Touch any part of the body, and immediately one or both the horns will appear and be extended, and the animal will, as it were, lash the spot where it feels that you incommode it. DeGeer (i. 322.), from whom this account is taken, says, that this caterpillar will bite very sharply.” *Kirby and Spence, Intr. to Entom.* ii. p. 252.

575. J. B. Bombyx?

A small Larva, with four elongated pointed processes at the caudal extremity, and the first pair of legs produced in a similar form; besides which there is a row of fleshy processes on each side of the body.

576. Larva of a Bombyx.

577. Bombyx?

A small tuberculated and hairy Larva.

578. Bombyx?

Small hairy Larvæ.

579. Bombyx?

Small hairy Larvæ of another species.

580. Bombyx?

A small hairy Larva.

581. Bombyx ?

Larva, with reddish-brown hairs set upon tubercles alternately nearer the anterior and posterior margin of each segment, as in *Arctia ocularia*. See *Kirby and Spence, Intr. to Entom.* iii. p. 175.

582. Bombyx ?

A small white Larva, with short white hairs, arranged as in the preceding specimen, but less thickly set.

583.

An exotic Larva, three inches long, of a dun colour, and remarkable for short white bristles, which project in a radiated manner from a central stem ; each segment bearing a transverse row of these fasciculi.

584.

A similar specimen, in which, as in the preceding, it may be observed that the hairs or bristles are most thickly set on the two extremities of the larva.

585.

A small Larva, with a transverse row of small spines on each segment.

585A.

A singular thick-bodied Larva, two inches and a half in length, of a light brown colour. Each segment bears six short dermal appendages arranged at equal distances, so as to form as many longitudinal rows ; the intermediate ones on the three first and last segments terminate in tubercles beset with short black spines ; the inferior ones are so long as to touch the plane of position and terminate in a single black spine, probably serving as supporters ; all the others have one or two short black spines ; the occiput has a transverse row of tubercles.

586.

A dark brown Larva, two inches two-thirds long ; on each segment (except the last, which has four, and the first, which has none,) there are six short spines. On the second and third segments they are of the same colour as the body ; the rest are white.

587.

A Larva allied to the preceding, but larger, and with longer spines.

587 A.

A brown Larva, four inches in length, with long white spines arranged as in the preceding specimen.

Donor, Thomas Keate, Esq.

588. Larva of *Bombyx regalis*, *Fabr.*

Fig. Catesby, Nat. Hist. of Carolina, ii. *pl.* 94. *Eruca maxima cornuta.*

Hab. Southern provinces of the United States.

On each segment there is a transverse row of spines, or spine-bearing processes; those of the second and third segments are remarkable for their length and formidable aspect; the rest are very short.

The Larva which is dissected for the lateral muscles, *Gallery*, No. 56, is of this species.

589. *Bombyx regalis*.

A similar specimen of the Larva, but of a lighter colour.

"The Giant Caterpillar of a large North-American Moth (*Bombyx regalis*, *F.*) is armed behind the head and at the back of the anterior segments with seven or eight strong curved spines from half to three-fourths of an inch in length. Mr. Abbott tells us that this caterpillar is called in Virginia the Hickory-horned Devil, and that when disturbed it draws up its head, shaking and striking it from side to side; which attitude gives it so formidable an aspect, that no one, he affirms, will venture to handle it, people in general dreading it as much as a rattle-snake. When, to convince the Negroes that it was harmless, he himself took hold of this animal in their presence, they used to reply that it could not sting him, but would them."

Kirby and Spence, Intr. to Entom. ii. *p.* 238.

590.

A Larva, smaller than the preceding, with a transverse row of very short spines on each segment; but the intermediate ones on the second and third are longer than the rest.

590 A.

A brown papilionaceous Larva from Demerara, five inches in length, bearing on each segment six or eight spines or stems, from half an inch to an inch in length, set round with smaller spines going off at acute angles. The spines on the extremities are the largest, and incline towards the centre of the body; the segments, which bear eight of these arborescent

appendages, are those which have no prolegs^a, viz. the fourth, fifth, tenth and eleventh, the additional two being situated on the ventral aspect of each of these segments in a situation analogous to that of the legs. The general aspect of this singular caterpillar is that of a minute pine-forest.
Donor, Thomas Keate, Esq.

591.

A Larva, smaller than, but apparently of the same species with, the preceding. The spines are most luxuriant on the anterior segments. Somewhat similar larvæ are figured in *Merian's Ins. Sur. pl.* 25. 43.

591 A.

A singularly beautiful white Larva from Ceylon, two inches in length; every segment, but the first and last, bears on its dorso-lateral aspects a spine or stem half an inch long, with a fringe of white shining hairs on each side.
Donor, Dr. John Davy, F.R.S. &c. 1821.

592. Larva of *Bombyx Quercus*, *Fabr.* *Phalæna Quercus*, *Linn.* The Oak-moth.

Fig. Roesel, *Ins. i. Pap. Noct. tab.* xxxv. a.
Hab. Europe.

593.

A Larva, five inches and a half in length, resembling in habit that of *Phalæna quercifolia*; but in this specimen the hair is confined to the lower margins of the body, a fasciculus shooting out in a radiated manner above each leg and proleg, and from similar situations in the apod segments.

593 A.

A fuscous Larva from Surinam; five inches in length; numerous white spots give it a shagreened appearance, and it is thinly scattered over with black stiff hairs; tufts of long silken yellow hairs arise from each segment immediately above the legs and prolegs; and a fringe of the same kind of hair projects from the front of the anterior segment, and overhangs the head.
Mus. Leverian. lot 3248.

594.

A broad-bodied Larva, three inches in length, thickly clothed with long white silken hairs. See *Merian, Ins. Surin. pl.* 16. *Kirby and Spence, Intr. to Entom. ii. p.* 227.

^a See Kirby and Spence, *Intr. to Entom. ii.* 288; iv. 353.

595 J. B.

A small white naked Larva, with a conical tubercle at the lower part of the sides of each segment.

596 J. B.

A small hairy Larva with an anal process, probably of a Hawk-moth.

597.

Chrysalis of a Moth remarkably downy.

598.

A Poplar-leaf, with the Web and Chrysalis of some Lepidopterous insect attached to it; and an Ichneumon.

599 J. B.

A Lepidopterous Larva, three inches and a half in length, with fasciculi of bristles arranged transversely on each segment, included in a dark-brown oval cocoon of a very thin texture, like gauze.

600.

A Lepidopterous Larva, with its pupa-case, the top of which is cut off; the latter is of a dense texture, about the thickness of parchment, of a light gray colour, and with a shining exterior surface.

601 J. B.

Pupa and Case of a Coleopterous (?) insect. The case is composed of fragments of wood, and is attached to a portion of Pine.

ORDO DIPTERA. ANTLIATA, *Fabr.*

(*Tipulidæ.*)

602. *Culex pipiens*, *Linn. Fabr.* The Common Gnat.

Fig. Swamm. Bibl. Nat. *tab.* xxxi. *fig.* 4—8; *tab.* xxxii. *fig.* 1—5.

Hab. Europe, in marshy places. "Insectum pipiens continuo susurro puncturaque molestissimum, aves imprimis aquaticas sustentat. Mas antennis pectinatis vix pungit." *Fabr. Syst. Entom. p.* 800. *no.* 1.

The glass contains larvæ and pupæ of this species.

(*Tabanidæ.*)

603. *Tabanus autumnalis*, *Linn. Fabr.*

Hab. Europe.

(Æstridæ.)

604. Æstrus Bovis, *Fabr.*

Fig. Reaum., Ins. iv. p. 503. *pl.* 38.

Hab. Europe: depositing its eggs under the skin of the Ox.

The specimen appears to have been excluded from the pupa-case only a very short time.

605. Æstrus Bovis.

A small portion of the skin of an Ox with two cysts, one containing a larva, the other empty.

606. Æstrus.

A portion of skin of the Ox or Rein-deer, in which are some cysts of Æstri. One of them is laid open on its external, another on its internal aspect.

607. Æstrus.

A section of skin containing the cysts of Æstri with larvæ.

608. Æstrus Equi, *Linn. Clark.* *Gasterophilus Equi, Leach.*

A portion of the stomach of a Horse with numerous larvæ or botts of different sizes.

609. Æstrus Equi.

A similar specimen, in which the botts have acquired their full growth. In these the circle of small spines at each segment are very distinct; they materially influence the progress of the larvæ through the alimentary canal. See the Article by Mr. Bracy Clark in *Linn. Trans.* iii., republished under the title "An Essay on the Botts of Horses and other Animals," 1815.

609 A. Æstrus Equi.

Clusters of botts adhering to the inner surface of the stomach of a Horse.
Donor, Mr. Clift, 1807.

609 B. Æstrus Rhinocerontis.

Two larvæ or botts from the stomach of a female Rhinoceros. The largest is fifteen lines in length, and they are more abruptly truncated at their posterior extremity than the larvæ of Æstrus Equi.

Donor, Sir Everard Home, Bart.

609 c.

Several small larvæ, about six lines in length and half a line in breadth, from the human frontal sinus; their intestines are of a dark colour, as if filled with coagulated blood; from their habitat they are probably allied to the *Œstri*.

Donor, Martin Mangles, Esq.

609 d. Larvæ, very similar to the preceding, which were voided *per anum* (*humanum*).

Presented to Joshua Brookes, Esq. by A. Copland Hutchinson, Esq.

Mus. Brookes. Catal. p. 105. no. 36 æ.

(*Syrphidæ*.)

610. *Helophilus pendulus*, Meigen. *Syrphus pendulus*, Fabr. *Syst. Entom.* 763. no. 7. *Musca pendula*, Linn.

Fig. Reaum., Ins. ii. *pl.* 34. *fig.* 9. 11.

Hab. Stagnant waters.

The larva is suspended by its tail, "which is composed of a double tube, the interior of which is very slender, extensile at the pleasure of the animal to a vast length, and terminated by a very small spiracle. The length of the tube is therefore varied according to the greater or smaller depth at which the insect chooses to continue; the tip reaching to the surface in order to supply the requisite quantity of air." *Shaw's Zoology*, vi. *part* ii. *p.* 381.

611. Larva of *Helophilus pendulus*.

(*Conopsidæ*.)

612. *Myopa buccata*, Fabr. *Conops buccatus*, Linn.

Hab. Europe.

Mas et fœmina in coitu.

(*Muscidæ*.)

613. Larva of *Musca vomitoria*. The Common Blue-bottle Fly.

(*Famil. dub.*)

614. Cell of the Pupa of some insect.

For the Library of
The University of Glasgow
From the Royal College of Surgeons in London
CATALOGUE

OF

THE CONTENTS OF THE MUSEUM

OF

THE ROYAL COLLEGE OF SURGEONS
IN LONDON.

PART V.

COMPREHENDING

THE PREPARATIONS OF MONSTERS AND MALFORMED PARTS,
IN SPIRIT, AND IN A DRIED STATE.



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C A T A L O G U E.

MONSTERS AND MALFORMED PARTS.

SERIES I. Preternatural Situation of Parts.

Sub-series 1. Without deficiency.

- No. 1. **T**HE body of a human Fetus, in which there is a complete transposition of the thoracic and abdominal viscera. The left lung occupies the right side of the chest, towards which the apex of the heart is also directed, while the right, or tri-lobed lung is situated on the left. In the abdomen, the greater lobe of the liver and the cæcum are situated on the left side; while the stomach and sigmoid flexure of the colon, (to show which the small intestines have been removed,) occupy the right. (*Mus. Heaviside.*)
2. A fetal Chick, (*Phasianus Gallus*,) having the upper and lower mandibles decussating, (resembling the natural position of those parts in the Cross-bill). In this specimen it is in consequence of a distortion of the upper jaw, which arises from the skull in an oblique direction. (*Hunterian.*)
3. An embryo of a Goose, (*Anas Anser*,) about the eighth day of incubation, the spine of which has a distorted appearance. (*Hunterian.*)
4. A small Plaice (*Pleuronectes Platessa*,) with preternatural situation of the eyes, both being on the *left* side of the head. (*Hunterian.*)
5. A Perch (*Perca fluviatilis*,) with the integuments and muscles removed on the left side, to show a considerable distortion of the spine. (*Hunterian.*)
6. A Perch with a similar distortion of the spine. (*Hunterian.*)

Sub-series 2. With deficiency.

7. A female monstrous Fetus found in the abdomen of Thomas Lane, a lad between fifteen and sixteen years of age, at Sherborne, in Dorsetshire, June 9th, 1814.

The following extracts from the account of the post-mortem examination of the body, and the description of the fetus, are derived from the history of the case published by Nathaniel Highmore, Esq., by whom the preparation was presented to the Museum, 1814.

“ Examination of the Body.

“On dividing the parietes of the abdomen and exposing its viscera, a large tumour, of an irregular but somewhat oval form, presented itself. It occupied portions of the epigastric, umbilical and left hypogastric regions; and was uncovered by the omentum, which was found in a ruffled state, lying above the tumour.

“In tracing the course of the intestines upwards and examining more particularly the tumour, I discovered that the jejunum was continued into the anterior and sinister-lateral part of the sac, inclosing the substance, of which, by its apparent expansion, it evidently formed a part. I then traced the course of the duodenum from the pyloric orifice of the stomach, and observed that its whole curve was firmly attached to, and connected with the sac, and that this intestine, also terminating in it, formed the anterior and dexter-lateral portion.

“The spleen, which had previously been suspected to be the viscus diseased, was lying behind the tumour, appeared compressed by it, and was inflamed at its lower edge. The liver was perfectly sound and healthy; as were also the kidneys, ureters, and urinary bladder. There was no bile in the gall-bladder, nor scarcely any fæces in the intestines, the latter containing little more than a quantity of coagulated blood, with two or three slight appearances of inflammation in the course of the jejunum and ilium.

“The young man, during the earlier part of my attendance on him, having laboured under frequent intermissions of the pulse, I examined also the state of the thoracic viscera. I found the pulmonary organs,

though not actually diseased, were of a bad colour, but perfectly capable of performing their functions. The pericardium was considerably distended, and contained about seven ounces of serous fluid; the heart was of the usual size, and quite free from disease.

“As the tumour appeared to be the only diseased part, and was evidently contained within the intestine, with a free communication between it, the duodenum, and the jejunum, I proceeded to remove it from the body; and, in order to prevent any alimentary or other matter from escaping, I secured the jejunum below the tumour, with two ligatures, and divided it between them; but, as the stomach was so closely connected with the tumour above, I considered that one ligature would there be sufficient, which I applied round the pyloric orifice, and divided the neck of the stomach.

“The only attachments that now remained were, to the mesentery, which had confined it close to the spine, and to the pancreas. I divided the mesentery; but as the pancreas so strongly adhered to it, immediately over the vertebræ, a portion of it was removed with the tumour.

“I conveyed the tumour to my house, and found its weight to be four pounds and a half: and, whilst in the act of placing it in a vessel where it was to remain during the night, my fore-finger accidentally slipped round the curve of the arm, at the elbow-joint, and first gave me the idea of its partaking of an animal form. At this circumstance I felt greatly astonished; and the more so, when, on my endeavouring to trace, through the sac, the extremity of the limb, I could count five digitals!

“The discovery thus made gave rise to a variety of conjectures and speculative arguments; and in order to ascertain that the youth from whom the fetus had been removed was really a male person, I accompanied several gentlemen to the mother of the deceased’s house, where they each respectively examined the body, and became fully satisfied that he was a perfectly formed male; a circumstance on which some doubts had been expressed.

“I determined on taking the fetus to London; where, having submitted it to the inspection of my medical friends, I deposited it in the Museum of the Royal College of Surgeons.”

“ Description of the Fetus ; and of the Sac, or Cyst, in which it was contained.

“ On opening the sac by an oblique incision through the anterior and thinnest part, an imperfect human fetus was discovered. It lay on the left side, with the right arm, which was perfect, bent down upon the right hip ; the left, which was very imperfectly formed, was resting against the leg, the thigh of which was bent up towards the abdomen ; and the leg was bent at an acute angle upon the thigh.

“ The fetus was connected with the sac by a short thick funis, which arose from its abdomen, rather towards the left side, passed forwards between the left arm and leg, and entered the sac at the posterior and upper part.

“ It had no head ; but at the basis of a denuded first vertebra some slips of skin arose, which followed nearly the course of the funis, with some medullary substance, around which was entangled a considerable quantity of matted hair, part of which measured twelve inches in length.

“ There was also adhering to this skin a thin piece of bone, appearing to be a portion of cranium. The spine was much curved. There were two superior extremities, the right of which was perfectly formed, but had been fractured just above the carpal bones : the upper end of the radius was also dislocated, and protruded through the integuments. The left upper extremity was less perfectly formed ; it was short, ill-shaped, and had only three fingers, with very long nails. The scapula of this arm rested on the side, almost as low down as the hip.

“ There was only one inferior extremity : the thigh was bent forwards upon the body of the child, and the leg bent, sharp-angle, upon the thigh ; the skin being common to each almost half their length, forming a kind of web, uniting the two together. The knee was dislocated ; the skin over it had been absorbed, and the joint exposed. The ankle was also dislocated, and turned inwards ; the common integuments had been absorbed, and the bones were exposed and perishing. It had six imperfectly formed toes.

“ The left inferior extremity was wanting ; but there was a considerable surface divested of skin, at the spot where it should have been. This

surface was regular and smooth, without any projecting bone, excepting at the inferior part, where a portion of ischium protruded.

“ There was a quantity of sebaceous matter between the extremities and the body of the fetus; on the upper part of the thorax was a long fleshy excrescence, somewhat like the papilla of an elderly woman; and the appearance of the genitals favoured the idea of the fetus being a female.

The sac, which contained the fetus, was made up of two distinct portions: the larger portion, which was thick, spongy, and highly vascular, involved the greater part of the fetus. A small portion of the buttocks, the bent carpus, and the right arm, together with the foot and ankle, were covered by, and lying in contact with the inner surface of the intestine of the boy, which formed the second portion of the sac.

“ The opening into the intestine seems to have been partly into the duodenum, and partly into the jejunum. The duodenum entered the cyst, the posterior part having been ruptured, while the anterior was continued into the jejunum, and formed the small portion of the described cyst. The jejunum emerged out of the sac, with a somewhat similar orifice, and was not far removed from the orifice of the duodenum: so that it was only the anterior portion of the intestinal canal that was dilated; the muscular fibres of the intestine could be easily traced, and were lost in the thick and vascular portion.

“ On the outside of the sac, near the place where the funis entered, a great number of large vessels were observable: and on the inside of the sac, not far from the insertion of the funis, was a large arterial branch ruptured, from whence the hæmorrhage proceeded, which was the immediate cause of the lad's death.”—For figures of the fetus see the work quoted, entitled “ *Case of a Fetus found in the Abdomen of a Young Man, at Sherborne, in Dorsetshire, by Nathaniel Highmore, Surgeon.*”—1815.

8. An imperfectly formed male Fetus, found in the abdomen of John Hare, a child between nine and ten months old, born on the 8th of May, 1807.

(*Presented by George William Young, Esq.* 1820.)

The history of this case is given at length in a paper by Mr. Young, in the

Medico-chirurgical Transactions, vol. i. p. 234. The examination of the body after death, with a description of the fetus, are alone extracted, as being sufficient for the purpose of explaining the preparation.

“ Inspection of the Body after death.

“ The abdomen, when measured, was twenty-two inches and a half in circumference. When this cavity was exposed, no fluid escaped; it was occupied by a large and nearly spherical tumour, which in parts was somewhat transparent, and appeared distended by a fluid. Above it, in the right hypochondrium, was seen the liver, much diminished in size; the fundus of the gall-bladder was turned forwards and inwards towards the linea alba. At the scrobiculus cordis, lying on the upper part of the tumour, was seen the pyloric extremity of the stomach; which fully explained the appearance observed to precede the act of vomiting during life (a pouch appearing to fill at the scrobiculus cordis, and to be pressed by the cartilages of the ribs against the tumour upon which it rested; so that by the state of this part, the approach of vomiting could be foretold, by which it was always emptied). The pylorus itself was scarcely distinguishable, therefore no means existed which were fitted to prevent a constant and free communication betwixt the cavity of the elongated stomach and the duodenum. The duodenum descended obliquely along the right side and upper part of the tumour; and then took its usual course behind it. The cæcum was not materially altered in position; but the colon ascendens, together with the arch of the colon, passed transversely over the tumour somewhat below its middle, and was firmly adherent to it; the tumour being evidently placed between the laminæ of the transverse meso-colon. The diaphanous omentum was stretched over the tumour betwixt the great curvature of the stomach and the arch of the colon; and the omentum minus was put equally upon the stretch; the small intestines were thrust down into the pelvis and hypogastric region, where, during life, they had been distinctly felt. The dense inferior part of the tumour rested on the mesentery. Before removing any part, I looked carefully for a cicatrix, which might mark the part through which the fluid must have escaped at the time the occurrences denoting a rup-

ture of the cyst took place ; but in this I was unsuccessful. I found the cyst thin and transparent where it was covered by the omentum ; thick, dense, and perfectly opaque below the arch of the colon.

“ After raising the stomach from its situation, the pancreas was seen stretched out upon the cyst, and its transparent duct appeared running along the fore and upper part towards its opening into the duodenum. It was remarkably elongated, measuring nine inches. The little pancreas was widely separated from the larger portion of the gland ; remaining close to the duodenum at the termination of the elongated pancreatic duct. So much were these glandular substances compressed between the cyst and the upper layer of the transverse meso-colon, that in a hasty view they might have passed by unnoticed. The splenic branch of the vena portæ also took its course on the anterior surface of the cyst towards Glisson’s capsule. This bundle of vessels answered the purpose of a firm ligament suspending the tumour. The posterior surface of the cyst rested chiefly upon the aorta, and was adherent to the left crus of the diaphragm. The cœliac artery, elongated, ran upwards and forwards to reach the superior part of the tumour, where its three branches were distributed in the usual manner. The superior mesenteric artery ran downwards towards the small intestines, closely adhering to the posterior part of the cyst ; and behind it the duodenum crossed the spine as usual. The vena cava passed on the right side, unconnected with the tumour.

“ After having thus far ascertained the relative situation of the tumour, and removed it from the body, I punctured it ; seventy-eight ounces of a limpid fluid escaped, having the colour of an infusion of green tea, with a very slight tinge of blood. The opening was now dilated to expose the fleshy mass which had been felt during life, and it may be easily conceived that we were greatly surprised on finding that this substance had unequivocally the shape and characters of a human fetus.”

“ Description of the External Appearances of the Fetus.

“ The surface of this singular monster was covered with a quantity of sebaceous matter, such in all respects as is often met with on the skin of infants recently born. When this was removed, the creature appeared as

rosy and healthy as if it had been yet alive. Its short and stout limbs were plump and firm; they were almost fixed in a posture resembling that in which the fetus in utero is usually found. Its spine was greatly curved, and formed a considerable rotundity backwards. The upper extremities laid close on each side of the trunk; the lower, which were remarkably short in proportion to their bulk, were drawn upwards towards the anterior part of the body, leaving the nates and genitals exposed below.

“At the upper part of the trunk, above and between the shoulders, was situated a dark red fleshy mass in the place of head, of which there was not any other vestige. This substance, when fresh, was plump and soft; careful dissection proved it to be of a texture resembling the pia mater. It is plentifully supplied with blood-vessels of considerable magnitude; but in no part of it could be found any substance resembling brain, nor could any nervous filaments be discovered in it. Across and into this substance ran a slender white cord, which was continued to the containing cyst, and there attached; it measured about two inches and a half in length. This proved to be nothing more than a slip of dura-mater. Another portion of this membrane may be seen covering and adhering to part of the anterior surface of the mass of pia-mater. But the chief connection betwixt the containing cyst and the fetus was found at the umbilicus; to this was fixed the apex of a fleshy cone, the basis of which was formed by the inferior portion of the cyst, immediately before that part of it to which the beginning of the jejunum is attached. The side of this conical substance was of a full red colour, smooth, plump, and to the feel possessed of a soft fleshy firmness. The diameter of the base of the cone measured one inch and seven tenths: its extremity at the umbilicus, half an inch: its side, one inch three tenths. A diagonal incision through its dense circular base gave vent to a quantity of black tenacious matter much resembling the meconium of infants: this, it was now found, had been contained in several convolutions of intestine, one of which adhering to the part divided, had unavoidably been wounded: thus it appeared, that this fleshy cone was an exomphalos; but, at the same time, it formed an important bond of union betwixt the fetus and the containing child, as will be shown in the sequel.”

“At the base of the mass of pia-mater, which occupies the place of head, are seen two locks of fine long hair of a light brown colour ; and beneath these, upon the thorax, two eminences. One on the right is of a button-like shape, its surface flat, its edge circular and rounded. It consists merely of common integuments padded with fat. The lesser eminence on the left, together with its stalk or peduncle, by which alone it is connected with the body of the fetus, contain the rudiments of a bony substance and some dense cellular membrane covered with common integuments. At the umbilicus is seen the exomphalos. The breech is well formed. The clutch or separation betwixt the nates distinctly defined ; but there is no anus. The genitals have all the external characters of the male : a penis with a loose and rugous preputium ; a glans penis denuded and most perfectly formed ; with a distinct orifice to the urethra : this canal is not continued more than a line in the substance of the penis, where it then terminates.

“A scrotum divided into two parts towards the anus, but having no other character of labia. There is, however, an appearance under the penis, seen only when it is raised, which at first sight renders the intended sex doubtful. A smooth red surface is seen, at the upper part of which is the aperture of a small and very short canal extending inwards not more than a line ; this is probably the continuation of the urethra, as it begins nearly opposite the termination of that portion of the canal within the penis.

“The right lower extremity consists of a very short thigh, a distinct knee, a very short leg, a well marked ankle, and a correctly formed foot ; the back of this foot rests against the shoulder of the same side, while the sole is turned directly forwards. The heel and outer edge of this foot and the hollow of the sole have all the most natural appearance ; but the toes exceed the usual number ; four very small separate phalanges furnished with nails hold the place of the little toe and its neighbour ; next to these are two large indistinct toes, each furnished with a nail ; and the great toe is split into two smaller well-shapen toes with nails.

“The left lower extremity is not equally well formed. A thigh, a knee, and a leg are easily distinguished ; but the foot is greatly mis-

shapen, in the manner of a club-foot ; the sole is turned backwards, and rests against the body and left shoulder ; the heel and the outer edge of the foot being turned inwards. The toes differ materially from the ordinary arrangement ; three little toes furnished with nails, lie evenly next each other towards the outer edge of the foot ; whilst the great toe is seen projecting considerably outwards, like a thumb separated from the fingers : betwixt these is a short thick mis-shapen projection with a nail upon it.

“The right superior extremity consists of an arm, an elbow bent and pointed forwards, a fore-arm, with the hand directed backwards, and resting against the side. The fingers are not complete either in number or form. There is one finger very well shapen ; it has a perfect nail, the only one on this hand ; on each side of this there is an imperfect stump, evidently intended for fingers. The left superior extremity, the elbow of which is marked by a slight bend and a deep dimple, consists of an arm, a fore-arm, a well-marked wrist, and a hand, to which there are but two fingers ; these are large, straight, and parallel ; on each a nail is distinctly seen. A singular appearance, which almost entirely occupies the posterior region of the body, exists in an abrupt termination of the common integuments on each side, forming the boundary of a dark red surface, broad at the shoulders, and tapering to a point towards the sacrum, above which it terminates. On the integuments around it are a number of fine short erect hairs, which are more numerous towards the pelvis. Along the middle of this space, in the direction of the spine, runs a line or raphé, from each side of which pass off transversely numerous filaments, the extremities of which hang loose, and when floating in water their arrangement may be more distinctly observed. Their course is not straight, but rather serpentine ; and they send to each other, in an oblique direction, slender filaments of a similar structure : they become gradually shorter towards the inferior pointed extremity of this part. On each side of this part the dark red denuded surface is rough ; but the villi which give it this appearance, have not any uniform or regular arrangement ; betwixt this and the edge of the integuments, there is a margin of perfectly smooth and polished membrane.

"The peculiar structure of this part rendered it a subject of curious attention in the dissection of the fetus. On examining the spine, it was discovered that there were no processes to the vertebræ, no vertebral canal, no spinal marrow; that the substance in question, plentifully supplied with blood-vessels, lay on the posterior surface of the bodies of the vertebræ, thus occupying the place of the medulla spinalis.

"From these circumstances it appears warrantable to conclude that it was intended to form the spinal marrow, and that it consists of the membranous and vascular materials which appertain to it.

" Dissection of the Fetus.

"The investigation was begun by a perpendicular incision through the parietes of the abdomen, on the left side of the navel; and another, at right angles with this, slit the umbilicus open. A membranous pouch was now exposed, which appeared to occupy the whole cavity of the abdomen; from this proceeded an intestine through the umbilicus; but nothing else could be seen at this confined incision; and it therefore became necessary to make an extensive exposure of the whole interior. It appeared that this would be most safely effected by extending the vertical section, begun at the abdomen, through the thorax, down the spine, and through the pelvis; as the corresponding edges of each portion of the section could be equally discovered, and the course of divided vessels be traced without difficulty. The deficiency of vertebral canal and spinal marrow was now ascertained; the bodies of the vertebræ being the only parts of the spine which had been developed. The small cavity betwixt this and the anterior parietes of the body contained but few parts; and these do not bear any very close resemblance to the usual contents of the trunk. There was no diaphragmatic partition dividing this cavity into thorax and abdomen. There was no heart, no spleen, no liver, no urinary organs, nor any internal organs of generation. At its upper and posterior part, close to the vertebræ, lay a very vascular substance of a pale rose colour; which, from its texture and situation, may be considered as intended for the lungs.

"The alimentary canal is the most perfectly formed of the internal

organs; part indeed of the intestines, situated in the exomphalos, is in all respects naturally constructed. Its commencement occupies the inferior and anterior part of the body, and entirely fills the pelvis; it consists of that pouch which has been already noticed. The complete section of the body at once exposed its cavity, which was filled with a coagulum of florid blood. That portion of the pouch which occupies the pelvis gradually contracts towards the anus, where it terminates with an impervious point; so that there is not here any outlet. Behind the upper part of the pubis the substance of the pouch is folded transversely, and forms a ridge, which projects considerably into the cavity. The extremities of this fold are gradually lost on each side in the substance of the pouch. Above this transverse partial septum the cavity is again expanded, especially at its posterior part, from whence commences a spiral course of the intestinal tube, narrowing in capacity as it passes towards the navel; giving to this part the appearance of a turbinated shell, the basis of which is in the cavity of the body, and the apex passes out at the navel; there is, however, no modiolus around which this portion of the alimentary tube winds itself. It forms three complete turns; and having passed out at the navel, terminates in a sudden enlargement, which is the commencement of the first and most considerable convolution of intestine. This passes along the side of the exomphalos to its basis, to both of which it adheres; it then bends its course backwards towards the body: this portion is unadhering; the concave edge gives attachment to the mesentery, in which the natural course of the blood-vessels is readily seen. Having nearly reached the navel it again becomes adherent; then suddenly is lessened in capacity, forming a small tube of dense structure, which terminates in a singular three-sided pyramidal body, the apex of which is free.

“ This body is of a firm fleshy consistence; its basis is united to the dense portion of intestinal tube just noticed, with which its narrow cavity is continuous. To one of its sides another convolution of intestine is attached, of less capacity and extent than that first described. The aperture of communication between this intestine and the three-sided appendix is large enough to admit a probe. From this last-mentioned

knuckle of intestine, which is supported by a distinct portion of the mesentery, the intestinal tube is continued behind the great convolution, adhering to the basis of the exomphalos. The remainder of the intestinal tube takes a tortuous course across the basis of the exomphalos, to which it is firmly fixed, and terminates in the straight gut. This capacious intestine closely adheres to the right side of the exomphalos, passing from its basis to the umbilicus, near which it terminates by an external opening, through which a probe passed without force. Here then the anus is found; on the right side of the exomphalos, near the umbilicus.

“There is an irregular bony substance at the upper part of the trunk, which may be considered as intended for the basis of the cranium. The spine, of which notice has already been taken, consists only of the bodies of the vertebræ, in which ossification has not been tardy. There are but few ribs, and these very short. The pelvis consists of a sacrum and two ossa innominata. The ileum is ossified, but the pubis and ischium are almost wholly cartilaginous.

“Of the cylindrical bones the bodies are ossified, but the epiphyses are cartilaginous. The carpus, the tarsus, and the phalanges are entirely cartilage. Some of the joints are well constructed: the extremities of the bones which form them are covered with diarthrodial cartilage; they are united by firm ligaments, and lubricated by synovia.

“Very little muscular substance is to be met with; there is not any on the posterior part of the trunk. The anterior parietes of the abdomen are composed solely of common integuments, adipose substance and peritoneum. About the hip-joints there are some slender portions of muscle; but little, if any, are discoverable in the remainder of the limbs; they principally consist of adipose substance.

“One of the most singular circumstances in the structure of this creature is the total absence of brain, of spinal marrow, and of the nerves of sense and voluntary motion; but a distinct plexus of nerves is seen just within the umbilicus, about the commencement of the intestines, to which numerous branches are distributed.

“The sanguiferous system is without a heart. It consists of two

main trunks. One, which is ramified at each extremity, sends numerous branches from the middle of the basis of the exomphalos, into its laminated substance; which extend far beyond the circular limits, defined by the attachment of the side of the cone. The peculiar structure in which they ramify forms a considerable portion of the cyst, as will be seen in the account given of this part. This trunk is then placed between the intestines, to which it sends branches; enters the umbilicus at its inferior part; passes first under and then to the right of the turbinated portion of intestine, and lastly enters the lung. It here divides into several branches, which are distributed to the extremities, to the spine, to the pelvis, and to the mass of pia-mater which holds the place of head. The other great trunk is placed on the right side of the first in the lung; where it receives branches from the pia-mater, from the spine, from the pelvis, and from the extremities. As it passes out at the umbilicus, it gradually separates from the first-mentioned vessel, and takes a direct course between the inner surface of the side of the exomphalos and the straight gut. Having reached the basis, it runs a little way along its edge, and then takes an extensive course on the inner surface of the cyst towards the superior mesenteric vessels of the containing child, near which it terminates. The considerable length of this vessel, it is evident, has been occasioned by the gradual augmentation of the cyst; it was so choked up by coagulated blood that quicksilver could not be made to run any distance in it; and though it could be traced to the neighbourhood of the superior mesenteric vessels, yet the greatest care and perseverance could not discover its mode of termination.

“From what has been already stated, it must appear that the containing cyst answered the purpose of a placenta to the fetus, and it therefore becomes a point of some interest to enquire into its structure.

“The thickness of the cyst is various; it is thinnest at its fore and upper part, where it was covered by the omentum; and, when fully distended, it was at this part transparent. Here an appearance was met with which explained the escape and re-accumulation of the fluid contents noticed during life.

“A laceration is seen on the inner surface about half an inch in length,

which leads to a separation of the extent of three quarters of an inch, between the two layers of which this part of the cyst is composed. At the termination of this separation there is a small hole through the external coat. This appearance, it is probable, had been produced in the following manner:—The great accumulation of fluid occasioned the internal coat first to give way, and this small rupture was, by the same cause, gradually enlarged. The external coat opposite this part had now to sustain the whole increasing force of distention; till at length, yielding at the small point noticed, it allowed the fluid to escape into the posterior cavity of the peritoneum, and thence, under Glisson's capsule, into its anterior cavity. In the flaccid state of the cyst, produced by the partial evacuation of its fluid contents, its vessels would in part repair this breach, and the separated laminae would again be brought into contact; so that a fresh accumulation of fluid would be prevented from escaping.

“The thickest part of the cyst is its inferior portion, the middle of which forms the basis of the exomphalos. It receives a peritoneal covering, between the arch of the colon and the mesentery, from the inferior lamina of the transverse meso-colon; the superior lamina of which is spread over the upper part.

“The internal surface of the cyst is lined by a smooth delicate serous membrane, which is reflected over the side of the exomphalos, and terminates as abruptly at the navel of the fetus, as the peculiar structure of the funis appears to end at this part in a fetus placed under ordinary circumstances. At some parts of the internal surface there is a scaly appearance resembling, in some degree, deciduous cuticle.

“The substance of this cyst consists of several layers of considerable firmness; varying at different parts in thickness, and apparently in number. Opposite, and to some extent around the exomphalos, these laminae appear much thicker, more numerous, and more distinct than elsewhere; this part can be shown to consist of eight laminae; they appear distinctly in a vertical section, and separate readily.

“This part of the cyst receives a very considerable artery from the colica sinistra. This vessel sends branches round the basis of the exomphalos, whose subdivisions cross it in all directions; but no mesenteric vein accompanies this artery.”

Sub-series 2.—With Deficiency.

9. A portion of the diaphragm of an adult human subject, having a preternatural opening in it, through which a considerable portion of the omentum has escaped from the cavity of the abdomen, into the thorax, and has contracted firm adhesions between it and the thoracic surface of the diaphragm, as if originally formed there. *Hunterian.*

The following account of this preparation is extracted from the Hunterian MSS. "Dissections of Morbid Bodies," vol. iii. p. 26.—No. 38.

"November 1757. I dissected the body of a marine who died at St. George's Hospital. He was in there for a carious tibia: he seemed to be very healthy, robust, fat, and young. When I was examining the viscera, I observed that the omentum was very small for such a subject. After this was done, Mr. Phillip was removing the stomach, liver, spleen, and pancreas; but he found the epiploon pass up by the spleen towards the diaphragm, and on pulling it down, he observed that it seemed to come through the diaphragm from the thorax; I cut off most of that part which was below the diaphragm, and so left it in that state for four or five days, till the thorax was opened, when we found a large portion of epiploon lying loose in the cavity of the thorax, and which was capable of being spread into its natural form, and was not at all diseased. It adhered to the edge of the hole in the diaphragm on that side next to the spine, but not on the other: and at the part where it passed through, it was much smaller, and continued so for a little way on both sides, but became gradually larger. This is a hint that it was natural; for if it had not been natural, it would have been as thick there as at any other part: or if it had been compressed by the ring made in the diaphragm, it would only have been smaller where it was compressed. The vessels anastomosed with those of the diaphragm very freely."

10. A male human Fetus, nearly at the full time, in which there is transposition of some of the abdominal viscera, the liver and stomach occupying the right iliac region; the greater part of the small intestines occupy the cavity of the thorax, into which they have passed through a preternatural aperture in the diaphragm. *Presented by Thomas Blizard, Esq. 1817.*
11. The body of a human Fetus, in which the whole of the duodenum, jejunum,

and ilium (to within an inch of the cæcum), together with the spleen, occupy the left side of the thorax, having passed through an opening occasioned by a preternatural deficiency of the diaphragm on that side.

Presented by J. W. Allison, Esq. 1824.

12. The head of a Dog, in which the right cuspidatus of the lower jaw, from its unnatural situation, and an excess of growth, has by its pressure formed an aperture through the palate for its reception, and thus allowed the animal the power of mastication. *Hunterian.*

SERIES II. Addition of Parts.

Sub-series 1. Head.

13. The head of a child at the birth, with a large spherical tumour attached to the vertex of the head. *Hunterian.*
14. A nævus maternus, formed in the inner canthus of the eye of a child. It was originally of a purple colour, and appeared at the time of its removal to be composed of a congeries of vessels. *Hunterian.*
15. A nævus maternus from the chin of a young man. *Hunterian.*
16. The head of a Roe (*Cervus Capreolus*) with horns, shot at Petworth in Sussex; the horns are but very imperfectly formed, the longest measuring not more than three inches in length.

Extract of a Letter from the Earl of Egremont, which accompanied the above specimen, presented by him to the Museum.

“ It is a female of the roebuck, of which there are many in the woods near Petworth, and on last Monday, August 2nd, 1810, I went out to endeavour to shoot a male; and seeing the horns, I thought I had done so, but it proved to be a very old and uncommonly large female, with two young ones in her. The roebuck does not shed his horns in the spring, as the stag and fallow-deer do, but in the month of December; and the horns are not burnished (that is to say they do not get bright, with all the skin and hair rubbed off,) till the middle of April or the beginning of May. I saw several males on Monday, and all of them had the skin and hair still remaining upon their horns. I thought this was a very old

male, from the imperfect appearance of the horns; for these, as well as the stag and fallow-deer, put out irregular and imperfect horns when they are old and past the prime of their vigour.

“ I believe this is a very uncommon specimen, and may perhaps be worthy of a place in the Hunterian Museum. &c. &c.

“ EGREMONT.”

17. The head of a monstrous Calf, (*Bos Taurus*,) the anterior part of which is duplex, presenting separate noses and mouths; a central eye (formed by the united orbits, and opening by one pair of eye-lids,) exists in the mid-space between the two external eyes; the ears, in number and situation, are perfectly natural. *Hunterian.*

18. The tongues of a double-headed Calf, which unite at the fauces, and have but a single larynx and pharynx. In the dissection of the head and neck of this animal, it was observed that “ there were three carotid arteries,—one on each side of the trachea, as usual,—and one large one ran up in front of the trachea, and divided into two vessels when it had reached the head; each of which gave off their branches in the usual manner.”—See Hunterian MSS. “ Dissections”, vol. iii. p. 75. June 1764.

19. The brains of the same animal, united at the medulla spinalis.

“ There are two completely formed brains, with the two medullæ oblongatæ, which join into one medulla spinalis just at the foramen magnum occipitale. The nerves arise in pairs from these brains, and pass through their respective foramina. The first, second, third, fourth, fifth, sixth, seventh, and ninth, had all parts to go to in their respective pairs, as usual, for there were two noses, four eyes, four ears, and two tongues; but there was but one heart, one pair of lungs, and one stomach; so that the great difference must have been in the eighth pair and intercostal. I found the eighth pair of nerves going down the neck as usual, and likewise the intercostal; and in tracing them towards their origins I found that they were from the outside of each brain. I then examined the inner eighth pair to see what became of them, and found that they dwindled into nothing in their passage through the skull.” *Hunterian.*
See Hunterian MSS. “ Dissections,” vol. iii. p. 75.

20. The two cerebella, uniting by the medullæ oblongatæ in one medulla spinalis; from a double-headed Calf. *Hunterian.*
21. An irregular sac, with a fibrous horny secretion upon its inner surface; from the horn of a monstrous Cow, (*Bos Taurus*). *Hunterian.*
22. A portion of the preceding structure. *Hunterian.*
23. A smaller portion of the same structure. *Hunterian.*
24. A similar portion, in which the corneous structure is very distinct. *Hunterian.*
25. A Pig, (*Sus domesticus*), with a defective palate, from which arises the rudiment of an upper jaw which contains teeth; the lower jaw is double, each side possessing a separate tongue and teeth. *Hunterian.*
26. A monstrous Kitten, (*Felis Catus*), with the anterior part of the head duplex, presenting a second, but imperfect nose and mouth. The eyes and ears are natural in number. *Hunterian.*
27. A similar monstrous Kitten. The mouths are extended to show the perfect separation of their cavities; the trachea also, which is single, is exposed at its upper part. *Hunterian.*
28. A similar monstrous Kitten, with an intermediate or third eye. *Hunterian.*
29. The head of a Turkey, (*Meleagris Gallopavo*), with a tuft or crown of feathers arising from the fleshy caruncle on the top of the head. *Hunterian.*
30. A fetal monster Duck, (*Anas Boschas*), having two distinct heads, which are attached to the body by separate necks. The wings, body, and legs are natural. *Hunterian.*
31. A young Duck, with an additional, but imperfectly formed leg and foot growing from the head, above the right orbit. *Hunterian.*
See a drawing, by Mr. Clift, of a similar monstrosity in a duck four months old. *Museum Drawings.*
32. A small specimen of the common English Snake, (*Coluber Natrix*), with two perfect heads. *Hunterian.*

33. A small American? Snake, with two heads. *Hunterian.*

See drawing of a similar monstrosity taken in one of the Islands of Lake Champlain in 1761. *Museum Drawings.*

34. A fetal Dog-fish, (*Squalus Canicula*), with two perfect heads, which unite in one body immediately behind the gills. *Hunterian.*

Sub-series 2. Trunk and Extremities.

35. A portion of human skin, the cuticle of which is partially turned down, to expose a thickening of the rete mucosum beneath, of a brown colour, and with long hairs growing from the cutis at that part, forming what is usually called a mole. *Hunterian.*

36. A *nævus maternus*, from the body of a child. *Hunterian.*

37. A portion of a human foot that had six toes, the last three of which are connate : the great toe has been removed. *Hunterian.*

38. The foot of a Pig, with an additional posterior toe. *Hunterian.*

39. The core of a horn which grew from the groin of a Ram. *Hunterian.*

See drawing of the horn in situ. *Museum Drawings.*

40. A double-bodied fetal Chick, with a single head, and four legs and wings. *Hunterian.*

41. A monster fetal Chick, with an additional pair of legs and wings growing from the ventral part of the body. *Hunterian.*

42. A monster Chick, with an additional pair of legs growing from the sacrum : on either side of the pedicle by which they are attached, a distinct and separate anus exists, into which bristles are placed. *Hunterian.*

43. A similar specimen. *Mus. Brit.*

44. A monster Chick, with an additional pair of legs growing from the lower part of the abdomen. *Hunterian.*

45. A young Gosling, with an additional leg growing from one side of the abdomen. *Mus. Brit.*

46. A Duck, with an additional pair of legs growing from the lower part of the abdomen. *Presented by Mrs. Robinson. 1819.*

47. A Pigeon, (*Columba Œnas*;) with an additional pair of wings; in other respects perfectly formed. *Mus. Brit.*
48. A Lizard, (*Lacerta strumosa*;) with the rudiment of an additional tail growing at an acute angle from the side of the true one. This is the effect most probably of an accident, and not a congenital deformity. The power of reproduction of that part of the body in this class of reptiles is well known; there are other examples in the Museum of a similar addition, produced from a wound alone, without the loss of the original tail it was intended to replace; therefore, although a casual product, it forms a monstrosity which naturally comes under the head 'Addition.' *Hunterian.*
49. A Frog, (*Rana temporaria*;) with an additional leg growing from the middle of the sternum. *Hunterian.*
50. An Earth-worm, (*Lumbricus terrestris*;) with the extremity of the body bifid. *Presented by Mr. Clift. 1810.*

Sub-series 3. Organs of Circulation.

51. An adult human heart, showing the existence of a septum in the right ventricle, by which it is divided into two nearly equal cavities. It arises from the apex, and is continued upwards to within an inch of the origin of the pulmonary artery, where it terminates in a concave edge opposite the intermediate space between that vessel and the tricuspid valve, leaving an oval opening which permitted a free passage for the blood to the lungs. The septum itself is composed of fasciculi of muscular fibres, similar to the general structure of the ventricle, leaving small foramina between them, in two of which bristles have been placed. *Hunterian.*

Sub-series 4. Organs of Digestion.

52. A human spleen, with a small secondary one attached to its concave side; it is spherical in shape, and about half an inch in diameter. *Hunterian.*
53. Part of the liver of a Cod-fish, (*Gadus morhua*;) with two gall-bladders. *Hunterian.*

Sub-series 5. Urinary and Genital Organs.

54. The lower part of a human urinary bladder, of which the ureters are double, and open in it by four distinct orifices, which are marked by bristles.

Hunterian.

55. A portion of a human urinary bladder, showing the terminations of a double ureter, the openings of which are marked by bristles.

Hunterian.

56. The lower part of a human urinary bladder, with double ureters opening in it, by four widely distant orifices, in which bristles have been placed; as also in the ducts opening at the caput galinaginis.

Mus. Heaviside.

57. A section of a human kidney, having a double pelvis and ureter, which are injected.

Hunterian.

58. A similar kidney, also injected.

Hunterian.

59. A small human kidney, with double ureters, which unite in one duct at about three inches from the gland. Injected.

Presented by Sir William Blizard.

60. A similar kidney, the ureters uniting nearer the gland.

Presented by Sir William Blizard.

61. A human double uterus, impregnated, containing a female Fetus at the full period of gestation.

This extraordinary case is described in a paper read before the Royal Society, June 23, 1774, by John Purcell, M.D. Professor of Anatomy in the College of Dublin; from which the following account is extracted.

“ Last summer (1773) the body of a woman, who had died in labour in the ninth month of her pregnancy, was dissected at the Anatomical Theatre of Trinity College. Upon opening the abdomen, an uterus appeared of such a size and form as is usually observed at that period. It contained a full-grown fetus; but was furnished with only one ovarium, and one Fallopian tube, which were situated on the right side. On the left was placed a second uterus, unimpregnated, and of the usual size, to which the other ovarium and tube were annexed. But these two uteri were totally distinct, and separated from each other, except at the lower

extremity of their necks, where their union extended a quarter of an inch, and an acute angle was formed between them. There was nothing extraordinary in the formation of the external parts of generation; but from each side of the meatus urinarius a membrane ran downwards; and the two having comprehended this orifice between them, were joined together a little below it, so as to form, by their union, a septum or mediastinum, which, taking the remainder of its origin from all that prominent ridge called the superior columna, and descending perpendicularly, was inserted into the inferior columna, so as to extend from the entrance of the vagina as far backwards as its posterior extremity, and thus to divide it into two tubes of nearly equal dimensions. But each of these did not lead to the womb of its own side; for the right vagina became gradually wider as it ran backwards, and at last was so far dilated as to comprehend, within its circumference, the orifices of both uteri; while that on the left side, having taken an oblique direction, ended in a cul de sac, or cæcum.

“ Such a conformation might have rendered it totally useless: to prevent which, Nature, fertile in expedients, seems to have had recourse to a very extraordinary contrivance. This was a fissure in the septum, an inch in length, and about an inch distant from the womb of that side. Although its circumference was perfectly smooth, we must acknowledge that it might have arisen from an accidental rupture of the septum; the lips of the wound not uniting, and, in process of time, becoming callous; and yet, I imagine, that the parts were originally formed in this manner, in order to preserve a communication between the two vaginæ. Thus it appears, that both uteri might be impregnated through either vagina, as that on the right side led directly to both; and as, by means of the fissure in the septum, the semen could easily be thrown from the left vagina into the right, where the apertures of the two wombs were placed. Through the latter passage both would seem to have an equal chance for impregnation: for, notwithstanding that which contained the fetus was placed almost directly in a line with the axis of the right vagina, yet this probably was not its original position; but by degrees its bulk increased so much as necessarily to occupy the middle space, and push

the unimpregnated one aside. But, however surprising it may seem at first view, yet there is reason to imagine, that the right womb, though at a greater distance, would be much more apt to conceive than the other, if the left vagina had been made use of. For when this was distended, it appeared that the posterior part of the septum, by its protuberance, closed up and covered the left os tinæ; and, as such would probably be the case in copulation, the semen not finding a ready admission into it, would pass over to the right orifice, where its entrance could not be so much obstructed. So that, if we may hazard a conjecture, I think it most likely, since the right uterus alone conceived, that the left vagina had generally been employed.

“The septum was not merely membranous, but fleshy, and of a considerable thickness; and, like most other mediastina in the human body, consisted of two laminæ combined. Of these each vagina furnished one; for each had its own constrictor, and being completely surrounded by muscular fibres, had a power of contraction independent on the other; which could not be effected if both vaginæ were comprehended within the same muscular rings, and separated by a membrane incapable of action.”—Philos. Trans., vol. lxiv. p. 474, with figures.

62. The uterus of a Cow, with a double os tinæ; one horn of the uterus was in a state of impregnation, but the calf which it contained, died at an early period of gestation. *Hunterian.*
63. The fetal Calf removed from the above uterus; it had become dry, and apparently of the consistence of leather. *Hunterian.*

SERIES III. Deficiency of Parts.

Sub-series 1. Head.

64. A part of the head of a human Fetus, with deficiency of the upper lip, and having a doubly-fissured palate. The eye-lids of the left side are very imperfectly developed, and the aperture between them considerably smaller than natural; those on the right side are naturally formed. Several excrescences, or nævi materni, exist upon the cheeks. *Hunterian.*

65. The head of a human Fetus at the birth, having a similarly defective palate and upper lip. *Presented by Sir William Blizard. 1804.*
66. A female human Fetus at the full time, with a similar deficiency of the upper lip, and a defective palate. *Mus. Brit.*
67. A Hedge-sparrow, (*Motacilla modularis*,) the lower mandible of which has a preternatural appearance, in consequence of its being rendered bifid by a fissure extending from its apex backwards. The left half of the lower mandible is one eighth of an inch longer than the right, producing the effect of a portion having been broken away by an accident on the opposite side. *Hunterian.*
68. A Flounder, (*Pleuronectes Passer*,) the head of which presents a distorted appearance, from the existence of a depression about one fourth of an inch in depth, situated above the eyes, somewhat resembling a second mouth; the dorsal fin terminates at the upper margin of this fissure, and forms a sort of crest. *Hunterian.*
69. The head of a monstrous Lamb, in which all the parts anterior to the ears are deficient; the ears approximate closely at their origin, and a small aperture exists between them that communicates with the œsophagus. *Presented by the Prince of Condé.*
70. The head of a similar monstrous Lamb; the superior portion of the œsophagus and trachea are exposed in situ. *Presented by Sir William Blizard.*
71. The head of a Lamb, the lower jaw of which is deficient. A spherical cavity, which opens externally by a small aperture between the ears, as in the preceding specimens, is laid open laterally, together with the œsophagus with which it communicates. *Hunterian.*
72. The head of a Lamb, the lower jaw of which is deficient. An aperture communicating with the œsophagus opens between the ears, which are placed upon the inferior part of the head, a situation occupied also by the eyes. *Presented by Sir E. Home, Bart. 1802.*
73. The head of a monocular or cyclop Lamb, which has the orbits and eyes

- conjoined. In other respects it resembles No. 71; the faucial cavity and the œsophagus are opened upon their inferior part. *Hunterian.*
74. The head of a monstrous Lamb, similar to the preceding specimen: the œsophagus and faucial cavity are laid open laterally; two quills are placed in the external opening between the ears, which is divided at that situation by a septum. *Hunterian.*
75. The head of a monocular Lamb, with deficiency of the lower jaw. *Hunterian.*
76. The head of a monocular Lamb. *Mus. Brookes.*
77. The head of a monocular Lamb. In this specimen the conjunction of the two globes within the single orbit is visible externally.
Presented by W. R. Gilbert, Esq. 1827.
78. The head of a fetal Calf, in which all the parts anterior to the ears, which are imperfect, are deficient; the œsophagus or faucial cavity communicating with it, opening between them. *Hunterian.*
79. The head of a Pig that was born alive, but from the total deficiency of the lower jaw it was unable to suck, and died about twelve hours subsequent to birth.
Presented by Robert Semple, Esq. 1820.
80. The head of a Pig, in which the distortion and deficiency are confined to the upper jaw, which is divided by a longitudinal fissure; the two separated portions being turned upwards, and slightly outwards, expose the palate and the milk tusks, whose points are turned towards each other. The eyes are conjoined and are contained as usual in one cavity formed by the two orbits. *Hunterian.*
81. A Pig, with all the parts anterior to the ears deficient; the opening which communicates with the œsophagus is seen between them: about an inch above this aperture there is a small rounded projection slightly divided on its inferior surface, having the appearance of the extremity of a penis; it is, probably, the imperfect rudiment of an eye-lid, immediately above which, numerous long hairs are growing. *Hunterian.*
82. The anterior part of the body of a similar monstrous Pig. In this specimen there is no external sign of even a rudimental eye. *Hunterian.*

83. A Pig with a similar deficiency of parts anterior to the ears. The small space between the ears, which in some of the preceding specimens is occupied by the aperture leading to the œsophagus, in this, gives rise to a fleshy pedicle or process about two inches and a quarter in length, which terminates in an irregular bulbous and slightly trilobed extremity. The faucial opening is situated nearly an inch below the junction of the ears.

Hunterian.

84. The head of a fetal cyclop Pig. The elephant-like proboscis arising from the forehead, which usually accompanies this species of monstrosity, is in this specimen deficient.

Mus. Brit.

85. A Kitten with deficiency of the anterior part of the head: the œsophagus, which terminates by an aperture beneath the ears, is laid open to show its course; a bristle is placed between what appears to be a pair of imperfect eye-lids, which are situated in the centre of the forehead.

Hunterian.

86. The anterior part of the body of a similar monstrous Kitten: in this, however, there is no appearance of an eye; a lateral section has been made of the head and neck, to show the course of the œsophagus, &c. in the external opening of which a bristle is placed.

Hunterian.

87. A monocular Kitten. The thorax and abdomen are opened to expose the viscera.

Hunterian.

88. A similar monocular Kitten.

Hunterian.

89. A fetal Chick, with a defective head and upper mandible.

Hunterian.

90. The head of a Carp, (*Cyprinus Carpio*), with a deficiency of the eye on the left side.

Hunterian.

91. The anterior part of the body of a Carp, in which all the parts of the head anterior to the eyes are deficient, the mouth opening by a contracted and irregular aperture.

Hunterian.

Sub-series 2. Trunk and Extremities.

92. A female human monstrous and hydrocephalous Fetus, in which there is a partial deficiency of the abdominal parietes extending from the lower

part of the sternum to the umbilicus, through which the greater part of the abdominal viscera has protruded, and is contained in a membranous and slightly pendulous sac: the arms are both ill-formed and defective, the fore-arms being deficient; the left foot and both the hands, on which the thumbs are wanting, are considerably distorted.

There is the appearance of a spina bifida on the lumbar part of the spine. (For a figure of this specimen, see *Museum Drawings*.) *Hunterian*.

93. A female human Fetus, in some respects resembling the preceding specimen. The whole of the abdominal viscera are protruded in a membranous sac, through a deficiency of the abdominal muscles: the sac has been laid open to expose its contents. The calvarium in this fetus is wanting; there is, however, a medullary tumour or imperfect brain attached to the posterior part of the head by a pedicle or base of about three quarters of an inch in diameter. The tumour forms a flattened mass which covers a considerable portion of the upper surface of the head, which otherwise presents the character of an ordinary acephalous fetus; the integuments of the imperfect head appear to be continued over the exposed brain, but at that part become exceedingly thin. *Hunterian*.

94. A male human Fetus at about the fourth month, with protrusion of the viscera in consequence of the absence of the abdominal parietes. There is also deficiency, with preternatural situation of some of the viscera, both thoracic and abdominal, with considerable distortion of the extremities.

The following account of the case, by J. C. Yeatman, Esq. is extracted from the Fifty-second volume of "The London Medical and Physical Journal," p. 367.

"A. W. miscarried about the fourth month of utero-gestation, of a male fetus, which presented the following appearances: the heart, left lung, liver, stomach, spleen, kidneys, and the intestines down to the sigmoid flexure of the colon, are connected to each other and to the spine, by a duplicature of peritoneum. There are no abdominal muscles or integuments, except a very small portion on the left side. The above viscera are bounded by the thorax, loins, and pubes, where the integuments are rounded off, and where they circumvent the viscera, describing a circle round them.

"The heart lies in an investment of peritoneum, in the right hypochondriac region, immediately above the convex surface of the liver ; its apex resting on the stomach, near the pylorus, and its margo obtusus lying in contact with the left lung. The left lung, which is particularly small, consists of two lobes, lying in the epigastric region, over the lesser curvature of the stomach ; its smaller lobe touching the heart. The stomach occupies its usual situation. The spleen is connected to the stomach at its large extremity. There is no appearance of omentum. The liver, consisting of two lobes, is unusually large, covering the stomach, spleen, kidneys, and most of the intestines ; but in the preparation it is thrown aside, its concave part being uppermost, in order to bring the viscera into view. The convex surface of the larger lobe of the liver is bound down to the integuments near the right hypochondriac region, by a broad and strong duplicature of cuticle.

"The left kidney is situated below the spleen and the larger curvature of the stomach, deriving a cuticular covering from the integuments of the left side and loin, which is blended with, and lost in, the peritoneal coat of the intestines. The right kidney is situated between the fetal extremity of the funis and the duplicature of cuticle which binds down the larger lobe of the liver. On opening into the thorax, no diaphragm is perceivable. The right lung, which consists of one lobe, occupies its usual situation, while nothing is contained in the left cavity of the thorax, and that cavity is much narrowed by a lateral incurvation of the spine. The aorta, trachea, and œsophagus, lie on the right of the incurvated spine. The distribution of the blood-vessels is natural, with the exception of the superior cava, which passes to the right auricle of the heart over the right lung, throughout the full length of that organ.

"The left inferior extremity reaches half-way down the thigh of the right. The left thigh lies over the inguin, and is bound down by integument to the pubes. The heads of the tibia and fibula are connected to the inner condyle of the femur, passing from thence at a right angle ; so likewise the astragalus, with respect to the internal maleolus.

"A. W. states, that about a fortnight after conception, while walking through a lane, a cow broke through a hedge into the road, close to her ;

which so frightened her, that she ran a short distance, and jumped into a dry ditch, remaining there till the animal was out of sight. The funis and placenta were natural. It is my intention to deposit the fetus in the Museum of the Royal College of Surgeons.

September 21st, 1824."

Presented by J. C. Yeatman, Esq. 1825.

Imperforate Anus.

95. The rectum of a female Child nearly two months old, born with imperforate anus, for which the operation had not been performed. *Hunterian.*

CASE.—“A female child of the name of Hall, was born on the 25th of July, 1786, in every respect an healthy child to all external appearance; but upon a more particular examination, it was found to have no perforation at the anus, although, externally, the verge had nothing remarkable in it, except being very much contracted; not allowing the point of the finger, or even a common quill to pass, the sphincter ani being so close, or contracted.

“This child living in the country, nothing was done, and it was left entirely to nature; the belly became exceedingly tumid in consequence of nothing passing the rectum; it became very much emaciated; its pulse became smaller and smaller, and it died on the 16th of September.

“Upon examination of the body, the large intestines were found very much enlarged and distended, particularly towards the rectum. The jejunum and ilium were slightly inflamed: the viscera in other respects had the natural appearance. The contents of the colon and rectum were fluid fæces. The rectum terminated in a blind end, just within the verge of the anus, hardly an inch up; and this blind end was only a thin membrane which might with great ease have been perforated.”—*Hunterian MSS. “Cases and Dissections,”* p. 138.

See original drawing of this case. *Museum Drawings.*

96. The rectum of a female Child three days old, born with imperforate anus, and for which the operation was performed. *Hunterian.*

CASE.—“Mrs. Colley, of No. 51, Piccadilly, was delivered of a healthy female

child, on Tuesday, May 22nd. It was observed, upon examination, the child did not go to stool in the usual time; and it was found to have an external opening at the anus, that it strained very much, and that also it did not make water. The child threw up the milk it sucked. On Thursday Mr. Hunter was consulted, and upon introducing a probe it came to a full stop at about half an inch within the anus. He also introduced the probe into the urethra, supposing there might be a stricture there; but the water flowed. He proposed an operation, but delayed it till the day following, to allow the gut to be as much distended as possible above the stricture. On Friday forenoon about eleven o'clock, the canula of a small trochar filled with a bougie, which projected, giving a rounded extremity, was introduced into the blind opening; and the bougie being withdrawn, the trochar was introduced, forcing whatever was before it, so as to carry the point along the inside of the sacrum, but at some distance from it, as nearly as possible in the proper direction of the rectum, and followed by the canula: the instrument was then withdrawn (the canula being left in), and was followed by meconium in considerable quantity.

“The child was now a little sick for some time after, became low, refused to suck, and in the afternoon was convulsed: in the evening the canula was withdrawn, and a bougie introduced, which passed very readily. No change, however, was induced, and the child died in the night.

“On Sunday morning the body was examined, and the operation was found to have perfectly answered the purpose intended, and to have wounded nothing but the imperforated extremity of the gut, which obstructed the passage of the contents of the intestine. This obstructed part was not more than one twelfth part of an inch in extent, and the canula had been directed to it by the rounded end of the bougie; the intestine above being distended, brought the stricture more in the line of the intestine, which being enlarged, more directly opposed the trochar.”

—MSS. “Cases and Dissections,” p. 136.

97. The rectum of a male Child, upon whom the operation for imperforate anus

was performed with success. This preparation is one of considerable practical interest, as it shows to what an extent it may be sometimes necessary to introduce the trochar, in the operation for puncturing the rectum, before it reaches the extremity of the gut;—in this instance to the extent of three inches.

The following are extracts of the above case, published in “*Practical Observations in Surgery*,” by Alex. Copland Hutchison, Esq. 2nd edit. p. 266.

“The fourth and last case was the son of Mr. Smith, a tinman, residing at No. 43, Whitcomb-street, and had been born forty-eight hours when the operation was performed, on the 17th Nov. 1822, in the presence of my colleague Dr. Granville, the father of the child, and the midwife.

“The raphe was the only guide we had for the operation, there being neither hollow nor depression to mark the spot where nature had failed in completing her design.

“The operation was performed by making an incision about an inch and a half in length with the scalpel, through the skin and fat, nearly as deep as the incision was long, but narrowing it two thirds at its fundus. Not having reached the intestine with the scalpel, and considering that we could not so safely proceed further upwards in the direction of the gut with that instrument as with the trochar, the latter instrument was preferred, and directed gently upwards, backwards, and inclining to the direction of the sigmoid flexure of the colon for about an inch; when, on withdrawing the stilette, we found the intestine had not yet been reached; the stilette was therefore again passed through the canula, which was still kept in the parts, and pushed upwards half an inch farther, when, from a want of resistance, I suspected we had at length succeeded; and on withdrawing the stilette a second time, meconium flowed through the canula in considerable quantity.

“The canula was secured by tapes, and retained in the parts three days. It was then withdrawn, cleaned, and again introduced, the fæces passing through it during that period.

“After about a week or ten days, the canula was removed, and sponge tents employed, but were laid aside from their inefficiency. The com-

mon smooth-made bougie of the largest size, was, after some weeks, substituted, and was found to answer the purpose much better.

“ The tents used were about three inches and a half in length; and as they were introduced close up to their thickest extremity, we ascertained precisely the distance of the intestine from the surface, by measuring the tent with a scale; the end of the part tinged with bile indicating the termination of the gut, and the verge of the newly-formed anus marking the length of the artificial canal, and which we found to be exactly *three inches*.

“ The child’s bowels were occasionally constipated for two or three weeks; but this was as frequently obviated by the administration of small doses of *oleum ricini*.

“ At the end of three months, it was observed, for the first time, that its urine was in some degree tinged with *fæces*. The child fed well, grew, was healthy, and some teeth appeared at the usual period; yet still the urine continued to be tinged; and until the morning of the day on which it died, the 29th Sept. 1823, (being more than ten months after the operation,) I heard of no one circumstance to lead me to suppose that the child had been otherwise than well.

“ On examining this child, post mortem, the artificial anus was found situated in a hollow, so precisely as if it had been originally natural; and this fact is the more worthy of record, when it is borne in mind, that at the period the operation was performed, there did not appear the smallest depression or fissure on any part along the line of the raphe, both nates preserving a continuous convex surface.

“ The rectum was found to be large, and distended with air; its circumference at five inches above the external aperture being six inches and three quarters.

“ A section of the bladder and urethra was made anteriorly, when a small valvular aperture was discovered communicating with the rectum, and situated about the eighth of an inch anterior to the *caput gallinaginis*; the aperture into the urethra admitting only of the passage of thin *fæces*, it being barely sufficient to admit the end of a common probe, but from its valvular structure precluded the urine from passing per anum.

“ The rectum was found to be considerably thicker than usual, parti-

cularly towards its lower part, probably from the increase of muscular force required to project the fæces through the long and narrow canal from the termination of the gut to the external parts, a distance (even after the removal of the parts, and maceration in spirit for a fortnight,) of one inch and a quarter.

“ It is curious to observe in the preparation, how in one part the mucous membrane of the rectum approaches, in a conical form, towards the verge of the artificial anus ; and how, in like manner, the external skin passes upwards to meet the descending mucous membrane, so that in one part of the artificial canal will be seen, meeting each other, the villous coat of the intestine and the external skin, like a dove-tailing of conical processes.” *Presented by A. Copland Hutchison, Esq. 1823.*

98. The rectum of a female Child, born with imperforate anus, for which the operation was performed.

“ CASE. — A female Infant, named Mary Scanler, was born with imperforate anus. The usual mark or hollow in the situation of the natural anus was most distinct. Upon making pressure over the abdomen with my hand, I could not discover any particular fulness or tension of the parts ; and therefore, profiting by past experience, I proposed to delay the operation till the following day, by which we would ensure a greater distension of the rectum with meconium, when the operation should be performed. On the 21st of November, just sixty hours from its birth, I performed the operation after the usual manner, when, at a distance of an inch and a half from the surface, we had the satisfaction of penetrating the intestine with a trochar, through the canula of which a quantity of meconium instantly flowed.

“ The child died on the 28th of December, without evincing any symptoms of acute disease ; and leaving an impression on my mind, that there had been gross neglect on the part of the nurse.

“ The next day the cavities of the chest, abdomen, and pelvis were examined, when not any appearance of disease could be traced. The parts were carefully removed, and are now in the Museum of the College of Surgeons.”—*Med. Gazette*, vol. i. p. 241.

Presented by A. Copland Hutchison, Esq. 1828.

99. The rectum of a Child born with imperforate anus.
Presented by Sir William Blizard.
100. The rectum of a Child born with imperforate anus.
Presented by Sir William Blizard. 1819.
101. The imperforate rectum of a Pig. *Hunterian.*
102. The imperforate rectum of a Pig. *Hunterian.*
103. The imperforate rectum of a Calf. *Hunterian.*
104. A male human Fetus at about the fifth month, having an abortive arm on the left side, in the form of a small fleshy projection, about three quarters of an inch in length, the extremity of which is somewhat trilobed, and has a short filiform process extending from it. *Mus. Brookes.*
105. A human Fetus, with deficiency of both the inferior extremities : the trunk terminates in an obtusely rounded stump about two inches in length, at the extremity of which there is a depression somewhat resembling an anus.
Presented by Sir William Blizard.
106. A similar monstrous human Fetus. In this specimen there is a slight projection, like the rudiment of an extremity, arising from the sacral surface of the body. *Mus. Brit.*
107. A tumour, of considerable dimensions, which was removed by operation from above the nates of a Child about fourteen months old ; which appeared to possess the rudiments of an additional extremity. On examination, after its removal, it was found to contain several hard ligamentous tubercles, and small portions of cartilaginous substance, but not any bony structure. At the junction of the tumour with the body of the child from which it was removed, was a portion of intestine about three inches in length, perfectly insulated, and having no communication with those of the child, but containing a fluid matter, in colour and consistency greatly resembling meconium. This portion of intestine terminated, at each extremity, in a cul de sac. The child quickly recovered from the effects of the operation. *Presented by Thomas Blizard, Esq. 1816.*

A very analogous case is registered in "Medical Facts and Observations," vol. viii. p. 1. 8vo. 1800.

108. A female human Fetus, the superior and inferior extremities of which are preternaturally short, the hands and feet being perfectly formed.—The following is a record of its birth.

“ Rebecca, the wife of James Gane, aged 30, was delivered on the 4th of May, 1825, of a still-born eight-months child (being her first pregnancy); it was a presentation of the feet, and the labour was of short duration. The father and mother appeared healthy and well formed.”

Presented by Wm. Lyon, Esq. 1825.

109. A Cat, born with the anterior extremities deficient. In all other respects it is a well-formed and perfect animal; the want of its fore-legs was in a great degree compensated by the increased muscular power and size of the posterior legs and tail, of which it made the same use in the erect sitting posture as a Kangaroo. It was sufficiently active in all its ordinary movements, and would with ease spring up or down a height of four or five feet.

Presented by Mr. Wm. Clift.

110. A fetal Puppy, with a similar deficiency of the anterior extremities.

Mus. Brit.

111. A fetal Puppy, with the legs, especially the posterior ones, so extremely short, as to present the appearance of feet alone, arising from the body.

Hunterian.

112. A fetal Puppy, with malformed and diminutive posterior extremities.

Mus. Brit.

113. A fetal Pig, in which, from a deficiency of part of the thoracic and abdominal parietes, the heart, liver, and the greater part of the intestines, protrude externally; they are contained in a very thin membranous sac, which has been opened on its inferior surface to expose its contents. *Hunterian.*

114. A portion of the left hip of a Boar, which had the leg of that side deficient, and in its situation a small nipple-like process. *Hunterian.*

“ The animal had no kidney on the left side, but there was a capsula renalis as large as on the right. The testicle of the right side was large, and in the scrotum as usual; but the testicle of the left side was in its original place, viz. the loins. There was no gubernaculum or cremaster

muscle of that side, and the parts leading into the scrotum had not the usual appearance, so that there were not the leading causes for the descent of the testicle. The left testicle also was smaller than the right, which is always the case with those testicles which remain in the abdomen after the usual time for their descent. There was no epididymis to that testicle, nor vas deferens, nor was there that body called vesicula seminalis; and the prostate gland was smaller on that side."—Hunterian MSS. "Cases and Dissections," vol. iii. p. 170.

115. The right posterior foot of a Pig, having one of the toes deficient.
Hunterian.
116. The left posterior foot of the same Pig, with a similar deficiency of the toe; there is, however, a very imperfect or rudimental hoof projecting from the side of the foot, about an inch from the single toe. *Hunterian.*
117. A fetal Pig, with the posterior part of the body defective, and having ill-formed and diminutive posterior extremities, which are solidungulous.
Hunterian.
118. The foot of a young Pig, having the toes connate. *Hunterian.*
119. The two anterior feet of a similar solidungulous Pig.
Presented by Sir William Blizard.
120. The foot of a solidungulous Pig. *Presented by Sir E. Home, Bart. 1810.*
121. A common Mouse (*Mus Musculus*) full grown, which from its birth had not the slightest appearance of hair upon its skin, being perfectly naked.
Presented by Mr. Clift. 1820.
122. A Fowl, which was hatched almost entirely without feathers, and so remained till the period of its death, in June 1807, when about seven months old. *Purchased.*
123. A Chick, hatched with the right leg deficient. *Hunterian.*
124. A Frog, with deficiency of the right anterior extremity. *Hunterian.*
125. A Star-fish (*Asterias glacialis*), with two of its rays connate.
Presented by the late Taylor Combe, Esq. 1819.

Sub-series 3. Organs of Circulation.

126. A section of the left ventricle of a human Heart, from a subject ten years of age ; in which there are only two semilunar valves existing at the root of the aorta. *Hunterian.*

127. A human Heart, with the right and left ventricles opened, to expose an aperture in the septum ventriculorum, which, during life, allowed a free communication between them.—The following is an account of the post mortem examination of the subject, a youth aged thirteen, from whom it was removed, (with reference to the malformation of the heart,) by the late John Heavyside, Esq. June 1803.

“ The thorax was first opened : on removing the sternum and cartilaginous parts of the ribs, both lobes of the lungs appeared very small and collapsed, particularly the right lobe ; and on making an incision into them, their texture was much firmer than natural.

“ On opening the pericardium, very little water was found in it. The large vessels going to, and from, both sides of the heart, as also the coronary vessels, were all greatly distended, more especially the veins, with the darkest coloured blood I ever saw.

“ The heart itself was unusually small. The auricles and ventricles were distended, being full of grumous blood.

“ On examining the septum between the ventricles, an oval opening (or nearly of that figure), with a cartilaginous margin, was discovered through it, at the basis of the heart, close to the origin of the aorta, and with which the aorta communicated.

“ I then cut the aorta across, just below its curvature, and on passing two probes into the vessel where it had been divided, both went into this opening, and from it one probe divaricated into the right ventricle, the other into the left ventricle, going through this opening, and lying on each side of the septum below the opening, thereby proving the aorta originating in, and receiving its contents from, both ventricles by this foramen. There was not any peculiarity in any of the valves in either side of the heart, or in those of its vessels. On inspecting the pulmonary artery, it was found of its natural size, structure, course, and termi-

nation. The aorta itself was not any where enlarged, or at all different from an aorta with a perfect formation of heart. The foramen ovale was completely closed. The ductus arteriosus imperforate. The carneæ columnæ in the right ventricle appeared larger and stronger than usual, as seemed also the substance of the parietes of the ventricle itself.

“The smallest vessels of the pleura, and those throughout the whole intestinal canal, were as full as the finest and most successful injection could have made them; but their colour resembled universally in appearance a portion of incarcerated intestine just beginning to turn livid, or as if they had been injected with powder blue, or even with blue verditer.

“The liver was larger, and occupied more of the left side than it generally does; its structure was undiseased. The viscera of the abdomen in general were perfectly sound, and had no peculiarity except their colour arising from the universal morbid circulation, owing to a deficiency probably of the proper quantity of blood circulating through the lungs by its natural course of the pulmonary artery, which was prevented by the aorta opening into both ventricles, and therefore, to a certain degree, receiving the contents of both.”

Mus. Heaviside.

See an original drawing of the heart by Mr. Clift. *Museum Drawings.*

128. An adult human Heart, having a similar aperture of communication between the ventricles, through the septum. *Purchased.*

129. The auricular septum of an adult human Heart, to show the foramen ovale remaining open. *Hunterian.*

130. The Foramen ovale open, in a subject sixty years of age. *Hunterian.*

131. An adult human Heart, with the foramen ovale open.
Presented by Sir William Blizard. 1811.

132. An adult human Heart, with the foramen ovale open.
Presented by Sir William Blizard. 1811.

133. A small human Heart, with the foramen ovale open.
Presented by Sir William Blizard. 1811.

Sub-series 4. Organs of Digestion.

134. The liver of a human Fetus, with deficiency of the gall-bladder and hepatic

duct ; a portion of the duodenum is left attached, to show that it is connected with that viscus by blood-vessels only. *Hunterian.*

135. The liver of a human Fetus, with a similar deficiency of gall-bladder.

Presented by Anthony White, Esq. 1826.

Sub-series 5. Urinary and Genital Organs.

136. The parts connected with a deficiency of the abdominal muscles immediately above the pubis, with protrusion and malconformation of the urinary bladder, in a male Child about a month old.

In this, as in other analogous instances of this species of monstrosity of the urinary organs, the everted and imperfect bladder (the anterior half being wanting) forms a soft and rounded tumour, which is situated upon that part of the abdomen in front of the separated pubic bones, where the skin and muscles are deficient, and through which opening the posterior part of the bladder is protruded. Upon the surface of this vesical tumour the ureters terminate, and are marked in the preparation by bristles placed in their orifices.

The penis is exceedingly short, consisting of little more than the glans, and an appearance of prepuce beneath ; this slightly projecting body is impervious where the canal of the urethra should exist, the situation of which is indicated by an indistinct vertical depression, on either side of which the seminal ducts appear to open. The scrotum is well formed, but the testicles have not descended.

Presented by Lionel J. Beale, Esq. 1829.

See an original drawing of a similar case. *Museum Drawings.*

137. The penis, scrotum, and bladder of an adult, in which the urethra becomes impervious at the distance of three inches from its external opening ; a canal or false urethra, communicating with the neck of the bladder, and by which the urine was discharged, opens externally immediately beneath the penis ; this canal has been laid open throughout its whole course, and is extended upon bristles placed transversely : there is also another passage opening near the neck of the bladder, which terminates

immediately behind the scrotum, at the commencement of the raphe, and has the appearance of a fistulous canal. *Hunterian.*

138. The penis and bladder of a Child which died in St. George's Hospital, in whom the existence of a stricture in the urethra had been suspected.

The preparation shows a deficiency of continuity in the canal of the urethra, at about half way between the glans penis and the crura, which forms an aperture that communicates with a sac about the size of a walnut, apparently formed by condensed cellular substance.—Nothing of the history of this case is known; but from the small size of the parts, there is little doubt that the appearances they present are congenital.

Hunterian.

139. The lower part of the abdomen of a human Fetus, showing a conjunction of the kidneys by a band continued from their inferior extremities across the lumbar vertebræ; forming what is usually denominated a "horse-shoe" kidney.

Presented by Sir William Blizard. 1811.

140. A similar specimen of horse-shoe Kidney, from an adult human subject.

Mus. Brookes.

141. The external organs of generation of a female Child. The clitoris and its prepuce are preternaturally enlarged, separating, by their size, the labia, and almost totally obliterating the nymphæ. The situation of the vagina is indicated by a very small external aperture about the diameter of a crow-quill, and is almost concealed by the clitoris; bristles have been introduced into the urethra and vagina, which in all other respects are perfectly formed and natural.

Hunterian.

142. The external organs of generation of a female Child, in which, at its birth, the rectum terminated in the vagina immediately within the hymen. An artificial anus was made, which, however, did not answer sufficiently the purpose intended, until the artificial and natural openings were laid into one; this afterwards succeeded very well, and accounts for the extreme narrowness of the perinæum.

Hunterian.

143. Imperfect external male organs of a Lamb. The body of the penis is deficient; but from a small aperture in the perinæum, where the urethra erminates externally, there is an imperfect urethra or groove continued

downwards towards the scrotum, which is bifid; at which part an impervious glans penis and prepuce exist. *Hunterian.*

Reference is made to this imperfect state of the external generative organs, in the "Animal Œconomy," p. 61. where Mr. Hunter remarks,—

"Hermaphrodites are to be met with in sheep; but, from the accounts given of them, I should suppose that they are not Free-Martins. I have seen several which were supposed to be hermaphrodites, but which were imperfect males, having the penis terminating in the perinæum; the orifice of which appeared like the bearing in the female. Such are not naturally stimulated to put themselves in the position of the female when they void their urine, so that when it passes, the surrounding parts are wetted by it, and being covered with wool, and retaining the urine, it keeps them constantly moist, and gives the animal a strong smell."

144. The generative organs of a similarly defective Sheep. *Hunterian.*

145. Imperfect male organs of a Sheep. The penis is deficient, the urethra terminating externally in the perinæum, about an inch and a quarter from the anus. *Hunterian.*

146. The glans penis and prepuce of a Sheep, with similarly defective parts. *Hunterian.*

Sub-series 6. Brain and Nerves.

147. A female human acephalous Fetus. The anterior parietes of the abdomen and the abdominal viscera have been removed, showing the kidneys in situ, and the renal capsules, which are exceedingly diminutive in size, being scarcely one-fifth of their natural magnitude. *Hunterian.*

148. The body of a human male acephalous Fetus, nearly at the full time. The spinal canal has been laid open throughout its whole course: the medulla spinalis, as usual in such cases of monstrosity, terminates in an expansion that partially lines the cavity formed by the cervical extremity of the canal, and from which arise small filaments which are marked by bristles, and distributed over its surface beneath the thin covering membrane, similar to a spina bifida.

A thin and transparent membranous sac occupies a considerable por-

tion of the upper surface of the head, and contained the brain (if such it might be called), the substance of which was as fluid as cream, having not the least distinction of parts, or of colour. On attempting to trace the optic nerves, neither their junction nor course in the brain was discoverable; the same was noticed with regard to the other nerves. A bristle has been placed beneath what appears to be part of the fifth pair, passing through foramina in the sphenoid bone.

There is also a divided or hare-lip, from which a fissure extends through the palate on the right side. *Hunterian.*

149. The body of a female human acephalous Fetus. In this specimen, also, the medulla spinalis is exposed; the membranous sac situated on the summit of the spinal canal, and with which it communicates, is opened, in order to show the nervous filaments spread upon its internal surface.

Hunterian.

150. A female human acephalous Fetus, at the sixth month. A cerebral tumour, slightly bilobed, partly covering and partly pendulous from the occipital part of the head, is contained in a thin membranous sac, through which there is a slight appearance of convolutions.

Presented by Wm. Copeland, Esq. 1828.

151. A male human acephalous Fetus, at the birth. When born it showed no other signs of life than a slight movement of the legs; but it retained its warmth in a considerable degree for some hours.

Presented by John Abbey, Esq. 1826.

152. A female human acephalous Fetus, at the birth.

Presented by Sir William Blizard. 1811.

153. The upper portion of the medulla spinalis (exposed in the vertebral canal) of a Lamb born with a total deficiency of head. The medulla terminates in a slightly expanded and obtuse extremity; the cervical nerves arise naturally.

Hunterian.

Spina bifida.

154. The sacrum of an adult human subject, with a spina bifida; the sac, covered by the integuments, is laid open. *Presented by Sir William Blizard. 1811.*

155. The last three lumbar vertebræ and sacrum of a Child, with a spina bifida. A bristle is placed beneath the lumbar nerves at their origin from the medulla spinalis. *Hunterian.*

CASE.—“J. Bogle was born with a spina bifida just upon the sacrum. It was at first a swelling about the breadth of half-a-crown, covered at its circumference with true skin; but in the middle there was a sort of solid gelatinous skin, that seemed not to be vascular. The child had no use of its lower limbs from birth. It was at first pretty healthy; the tumour broke and discharged water mixed with purulent matter; it began to be ill, left off sucking and eating, and died.” *Hunterian MSS.* “Dissections,” vol. iii. p. 47.

156. A section of the sacrum and lumbar vertebræ of a Child, born with a spina bifida, and which lived a fortnight; the lower end of the medulla spinalis is lost in the sac, from which the lumbar nerves pass out. *Hunterian.*

CASE.—“A child of the same parents as the subject of the preceding case, was born with a spina bifida. The swelling was just at the lower part of the sacrum, much like the other, but black in the middle, where it was yellow and gelatinous in the former. The child was very healthy for five or six days, and had the use of all its limbs, but the tumour broke on the day after birth. The child fell ill, and continued so till death, which was about a fortnight after birth; all this time it was very restless, seemed to be in pain, and hardly ate or drank any thing after it was taken ill; however, it had the use of its lower limbs till death. I took out the last three vertebræ of the loins, and the whole sacrum and coccygis, and observed, when I cut through the medulla spinalis, that it was of a dark brown colour. To see if the medulla was diseased much higher, I slit up the spine with a pair of scissors, and found that the medulla was become quite rotten as high up as the middle of the back, and all above that it was as common: but its substance had become softer; no nerves could be traced arising from it; its colour was changed from white to brown; its coat of pia mater was destroyed, so that it lay within the dura mater like an irregular mass, and it was very offensive to the smell. The body of the child was opened the evening it died, so that this rottenness was before death.

“ When I examined the spina bifida, I first cleaned the nerves coming through the holes of the spine and sacrum, and found them strong and sound as usual : I then traced them into the medulla, cutting off the transverse processes, and all of the bone that covered them. The first four of the sacrum let me into the middle of the bag ; then passing through its middle, making a kind of partition dividing it into two, and their extremities seemed to be fixed to the most prominent part of the bag where it was black ; but as it had burst at this black part, so that it was almost destroyed, the nerves by that means became more loose at their ends, or at this adhesion. The cauda equina terminated in the same part likewise, so that here seemed to terminate the medulla, and the sacral nerves to begin : the last lumbar nerves seemed to come partly from the cauda above, and partly from below, which was now by a loose end ; and the first, second, and third sacrals by loose ends in this bag, and which were attached (before the bag was broken) to the black part.”—*Hunterian MSS.* “ Dissections,” vol. iii. p. 47.

157. The last three lumbar vertebræ and sacrum of a Child at the birth, to show the opening of a spina bifida at its posterior part. *Hunterian.*
158. The base of the skull of a Child three days old, with the cervical, and some of the dorsal vertebræ attached, in which a spina bifida existed in the neck, and where the double ligature had been applied ; the operation produced convulsions, and the child died.

Presented by Anthony White, Esq. 1827.

Sub-series 7. With Addition.

159. A male human Fetus, nearly at the full time, in which both the eyes are conjoined, and contained in one orbital cavity, occupying the centre of the face : there is deficiency of the true nose, the intervening space between the Cyclops eye and the mouth being perfectly smooth ; immediately above the eye, however, a tubular projection or proboscis, about an inch in length, and slightly tapering towards its open extremity, arises from the forehead. The ear and thumb of the right side are but imperfect rudiments of the parts whose situation they occupy. *Mus. Brit.*

160. A monstrous Pig. In this specimen, the globes of both eyes are in contact, not any septum existing between them; and, as in the preceding human fetus, they are contained in a single orbit, being visible by one aperture, or pair of eye-lids, which open above a very imperfectly formed upper jaw, and give the appearance of a single eye. Above the conjoined eyes arises a prolonged snout or proboscis, about two inches in length, perforated throughout by a canal, which opens at its extremity by a single orifice.

Monsters of this description, from the existence of the central eye, and the proboscis, are usually denominated Cyclops or Elephant Pigs.

Hunterian.

See a drawing of a similar monster. *Museum Drawings.*

161. A similar monocular Elephant Pig. *Hunterian.*

162. A similar monocular Elephant Pig. A longitudinal section of the proboscis has been made for the purpose of exposing the internal canal, or nostril, the course of which is indicated by a bristle. *Hunterian.*

163. A similar monocular Elephant Pig. *Mus. Brit.*

164. A similar monocular Elephant Pig. *Mus. Brit.*

165. A monocular Elephant Pig, born alive, but destroyed twelve hours after birth by the parent sow.—In this specimen, the brain and proboscis were examined, and the following account of the dissection may be considered as descriptive of the same parts of similar monsters.

“ In this instance the proboscis was supported by a process of the frontal bone, the outer table of which was separated from the inner, and was produced in a tubular form outwards and downwards for the extent of an inch; beyond this, the proboscis consisted of fibro-cartilage, and terminated in a flattened disc, with a transverse slit or aperture, which conducted into the cavity of the proboscis; the cavity was lined by a smooth shining membrane, and contained an elongated turbinated bone. At the further extremity it received a few minute filaments which arose from the anterior lobes of the brain, in the situation, or a little above the origins, of the olfactory nerves.

“ The brain did not fill the whole cavity of the skull, but exterior to it was a quantity of serum filling the intermediate space. The cerebrum presented a singular appearance: it consisted chiefly of the corpora quadrigemina and optic thalami, over which was a thin layer of medullary matter, or fornix, which was reflected from before, backwards, like a hood, becoming mere pia mater at the posterior edge; the single cavity or ventricle thus formed, contained serum, and at the posterior part lay the choroid plexus.

“ The pineal gland was attached, as usual, to the optic thalami. The cerebellum appeared to be perfectly formed.

“ Below the proboscis was situated the cyclops eye, composed of two eyes blended together, having two distinct corneæ, two lenses, and two lachrymal glands, one at each side. There was no aqueous humour behind the corneæ; the choroid coat appeared to be continued over the lenses, in contact with the corneæ.

“ The optic nerves were conjoined at their exit from the skull, but arose separately from the optic thalami.

“ Beneath the eyes there was a white projecting bag, which externally appeared like a third eye, but on opening it, it was found to contain the capsule and pulp of an incisor tooth.

“ The upper jaw was deficient in front; the lower jaw and tongue were perfect, the latter fringed, as is usual.”

Presented by Gerard Smith, Esq. 1830.

166. The head of a similar monocular Elephant Pig, with the upper part of the skull removed, to show the diminutive size of the brain; a bristle is placed in the canal of the proboscis. *Hunterian.*
167. The anterior part of the body of a similar monocular Pig. *Hunterian.*
168. The anterior part of the body of a similar monocular Pig. *Hunterian.*
169. The anterior part of the body of a monocular Pig, without the existence of a proboscis. Immediately above the eye is situated a membranous sac containing fluid, which communicates with the cavity of the cra-

nium. The sac appears to be covered by the common integuments of the head. *Hunterian.*

170. The anterior part of the body of a female monocular Elephant Pig. In this specimen all the natural parts anterior to the cranium and ears are deficient. *Presented by Sir E. Home, Bart. 1810.*

171. The head of a monocular Elephant Pig. *Hunterian.*

172. The head of a monstrous Pig, in which there are the rudiments of a second mouth, containing a tongue and teeth, situated beneath the lower jaw. The palate of the true head is divided, the fissure extending through the snout ; the right eye and ear are also very imperfectly developed.

Hunterian.

173. An acephalous monstrous Pig, having two defective heads conjoined ; presenting separate mouths, and snouts, anteriorly. There are only two ears, which are situated naturally ; as are the two external eyes, one on each side ; between which, however, in the mid-space, there is a third or central eye, formed by the junction of the two approximated orbits and their contents. The animal was farrowed alive at Whitechapel in 1815. *Purchased.*

174. A monocular fetal Puppy, having the usual proboscis, or tubular snout, which is generally found to exist in animals born with central or conjoined eyes. *Mus. Brit.*

175. A monocular Kitten. The proboscis, which is but little developed, has its canal marked by a bristle which is placed in the orifice. *Hunterian.*

176. A monster Puppy, with an additional posterior extremity, which from the heel forwards presents the appearance of two extremities conjoined, having a divided palm and six toes. The abdomen is opened, and the greater part of the viscera removed, in order to show a deficiency of the right kidney, and a duplex state of the rectum, bladder, and vagina. The secondary rectum and bladder unite and become impervious at the anus ; the openings of the two vaginæ and the proper rectum are marked by bristles. *Hunterian.*

See *Museum Drawings.*

177. A fetal Puppy, with deficiency of the upper and lower jaws. There is a small transverse fissure situated between the proboscis, (which is perforated by a canal,) and a rounded projection occupying the situation of the lower jaw. *Hunterian.*

178. Twin fetal Puppies, closely united by the abdomen and thorax. The head appears single, but is exceedingly defective, and is formed by the conjunction of two monocular heads, in which the ears occupy on each side the usual situation in monsters of this kind; viz. approximating closely at their origin, and leaving a small opening between them, that communicates with the œsophagus beneath each cyclops eye.

Presented by Sir William Blizard. 1811.

179. A double-headed acephalous Chick, in which the skulls are conjoined, producing a double pair of mandibles in front; there is, also, a third or central eye, formed by the conjoined orbits. *Hunterian.*

180. A similar monstrosity in a fetal Guinea-fowl (*Numida Meleagris*).

Presented by Mr. Belfour. 1818.

181. A double-headed acephalous Chick, which has two well-formed superior mandibles, but with a single one beneath, which projects between them at the angle of bifurcation. There is an additional pair of legs arising from the abdomen, a little above which, is also a pair of small rudimental wings.

Presented by Sir William Blizard. 1811.

Sub-series 8. With Union, or Preternatural Connexion.

182. Human female Twins, united; the junction extending from the inferior end of the sternum to the umbilicus. There appears to be a deficiency of the muscles of the lower part of the abdomen, in consequence of which a sort of congenital hernia has been produced; and from the sac containing part of the abdominal viscera, the funis, which is single, arises.

Hunterian.

183. Human female Twins, born at the full time, conjoined in a similar manner.

Presented by George D. Friend, Esq.

The following history of the case is extracted from a letter which accompanied the preparation.

CASE.—“Anne England was delivered of the *Lusus Naturæ* presented to the Royal College of Surgeons. On Wednesday, the 3rd instant I was sent for about four o'clock in the morning, and found her in labour; the *os tinæ* was but little dilated, enough however to discover a natural presentation, the pains being feeble, and the *os uteri* dilating slowly. About ten o'clock the pains became much stronger, still but little progress was made. About noon I examined again, and found a face presentation, the face towards the pubis; knowing from that circumstance more time would be required, I waited until four o'clock; still the labour was very slow, and so continued until twelve at night, when the pains became very strong, and the *os uteri* completely dilated, the head descending very slowly till about one o'clock, when perineal tumour was formed, and about two the head was expelled; but I found, while waiting for the pains to expel the shoulders, the face did not make the necessary turn to the ischia as usual; I endeavoured to make the turn, but failed. Supposing the shoulders were confined in the bones of the pelvis, I made a blunt hook of my finger, and brought down one arm, and then the other: the pains became exceedingly strong, yet no further progress was made. Supposing the body might be very large, I used considerable force to extract it, during the pains, and found on a second attempt a sense of something lacerating, as if the *funis* was tearing away from the placenta: the hand was then introduced along the body of the child (with very great difficulty) to ascertain the cause; I then discovered the abdomen of another child, attached; the chest was in some measure lacerated, this accounting for the sense of tearing before mentioned. A little hemorrhage coming on, I resolved to bring down the feet of the first child; I succeeded in this, and the breech and shoulders were doubled almost together, the abdomen attached to the other remaining in utero. In order to bring down the legs of the second child, I introduced my hand between the feet of the first child and the perinæum; this was also accomplished with great difficulty. I found the feet thrown back in the uterus, the chin resting on the *os pubis*, and the abdomen protruding into the vagina. I then brought down the feet and delivered my patient, but not without considerable difficulty.

"I have delivered the woman four times, and twice she has had a deformed child. In the one the gastrocnemius of each leg was attached to the biceps flexor cruris, and the feet appearing as if growing out of the gluteus, leaving only a small portion of the tendo achilles separate. This child was still-born. The second was also still-born, and had no fore-arms, the hands being formed at the elbows.

GEORGE DEAR FRIEND."

"*Newington, near Sittingbourne, May 24th, 1815.*"

184. Human female Twins at the birth, similarly united. The cavities of the thorax and abdomen have been opened, to show the hearts, livers, &c. which are conjoined. *Hunterian.*

185. Human female twin Fetuses, at about the seventh month, similarly united. The following is an extract of a letter from Whitlock Nicholl, Esq. to Sir Joseph Banks, Bart., by whom the above specimen of monstrosity was presented to the Museum.

CASE.—"The children are females, and they are united by the chests and the epigastria. On opening into the thorax and the abdomen, I found great difficulty in examining and in separating the viscera, owing to the preparation having been, I believe, very long in spirit. The liver appeared double, somewhat like a bivalve shell, the lower liver having its convex surface turned downwards, but both were closely united at the posterior part. Each liver was furnished with a gall-bladder. There were two stomachs, which with the short duodenum proceeding from each, lay in the fissure between the two livers, closely embracing the double viscus. The duodena at a short distance from their origin united, so as to form one intestine, which canal continued single to the extent of about two feet; at this point it became double, and continued so, the extremity of each canal terminating at the anus of each fetus. The length of each canal from the bifurcation to the extremity of the rectum was about two feet. At the distance of about twelve inches from the bifurcation there was a cæcum belonging to each canal, with its vermiform appendage. There were two small spleens, and two sets of kidneys. I could not make an accurate examination of the thorax, owing to the brittle and tender

state of its viscera, but I ascertained that there was but one heart, which was an oblong viscus ; I could not examine its structure, for the reasons which I have assigned. WHITLOCK NICHOLL."

" *Ludlow, March 1st, 1817.*"

186. Human female twin Fetuses, at about the fifth month of gestation, united in the same manner as the preceding specimen. *Mus. Brit.*
187. Human female twin Fetuses, at about the fourth month, similarly united. *Presented by Sir William Blizard. 1811.*
188. Human female twin Fetuses, from Grenada. They are united in a similar manner to the preceding specimens, and appear to be at about the second month of gestation. *Presented by Sir E. Home, Bart. 1804.*
189. A human female twin Monster at the birth, in which the necks and bodies are conjoined. There is but one head, which, externally, appears to be perfectly formed. One of the arms on the right side of the body presents a distortion at the wrist, the hand being attached to the fore-arm at nearly a right angle. *Hunterian.*
190. A human female twin monster Fetus, at about the seventh month of gestation, the bodies and heads of which are united. The latter are obliquely conjoined, presenting a single face, which has a lateral aspect, and having nothing indicative of features on the opposite side, but two well-formed ears in close contact at their lobes, with one meatus common to both, opening between them. *Mus. Brit.*
191. A human female twin monster Fetus, brought from the East Indies in 1805 ; in all respects resembling the preceding specimen, except that about three quarters of an inch above the pair of posterior approximated ears, there is the appearance of a small transverse fissure, in its situation resembling that occupied by the eye in some of the preceding examples of cyclops animals. *Presented by Sir E. Home, Bart. 1807.*
192. A female twin Monster, between the seventh and eighth month of gestation, of which a woman was delivered in the Cork Lying-in Hospital, by Dr. M^cNamara, on the 2nd of April, 1820. From the umbilicus upwards, the bodies are conjoined, as are also the heads (in that respect resem-

bling the two preceding monsters); in this, however, there is a perfect face existing on either side, and laterally placed as regards the position of the united bodies. The labour was exceedingly tedious, attended with convulsions, and did not terminate in less than forty-eight hours, but without the assistance of instruments. The fetuses lived for four or five minutes. There was but one funis and placenta. The ossa temporalia are wanting: the other bones of both heads are perfect. The ossa frontalia are situated laterally, and intimately connected with the ossa parietalia of both heads. The thorax of each, as well as a certain portion of the abdomen, are closely connected. From the lumbar vertebræ, every thing is perfectly natural. *Presented by the late Thomas Sharp, M.D. 1820.*

193. A human female twin monster Fetus, at the fourth month of gestation; in all particulars resembling the preceding specimen. *Mus. Brit.*

194. A human female twin monster Fetus, with the bodies conjoined in a similar manner to those of the two preceding specimens. The united heads, however, differ essentially in regard to the position of the faces, which are joined together, and present a double set of features on one side; the central or inter-nasal orbits are united into one, and the duplex face is bounded by two well-formed ears, one appertaining to each fetus.

Hunterian.

195. A human female twin Monster, the bodies of which are united in a transverse direction.

The following account of the specimen is extracted from a paper entitled, "Particulars concerning the Structure of a Monster Fetus," by M. Maunoir, Professor of Surgery at Geneva. Read Jan. 23, 1816. *Med. Chir. Trans.* vol. vii. p. 257. (With Figures.)

"It was born of a young woman of between 16 and 17 years of age, at the beginning of the year 1815, and lived a few minutes. The labour presented no particular difficulty; the perfect head was born the last.

"One of the heads of this double fetus is perfect; the other is more than imperfect; for in the place which it ought to have occupied, the rudiments of the cranium and face only are met with. The perfect head may be designated as the superior one; the inferior one being that

of which only a few rudiments are found. There is only one circulating system, that is, only one heart, and one set of respiratory organs; both occupying the superior thorax, which indeed appears to be perfectly formed; the other thorax is completely wanting. An enormous liver covers the whole of the intestinal mass, and appears through a pellicle or transparent membrane, between the laminæ of which a single umbilical cord passes in a serpentine course, and enters into the liver. There are therefore no anterior muscular abdominal parietes. The liver, the membranes, and the cord, have unfortunately been removed. The inferior head, such as is shown in the preparation, had a large bladder growing upon it, filled with a clot of blood; it had been removed, from an idea that it was of no importance. There is only one complete system of digesting organs on one side, while on the other are found two intestinal appendices quite anomalous in their structure, and communicating with the former; that is, the complete canal commences from the mouth of the perfect head, and is regularly continued to the anus of the right side; but when it has attained the middle of its length, the ileum gives out a branch of intestine which proceeds till it terminates in a kind of cloaca, or cavity, corresponding to the inferior head, and constituting the whole of its cavity. Two inches further, this ileum bifurcates, in order to form on each side a cæcum, each of which is continued into a colon and a rectum. The rectum on the right side opens by the only anus which is met with in this monster; the left rectum, which was prodigiously distended with meconium, terminates by an imperforate bag near the fundus of the left uterus. On opening the cloaca, it was found to contain the rudiments of a lower jaw, and of a tongue, which were immersed in the meconium with which this cavity was filled. The left uterus, on which the left rectum reposed, is fully developed, and its bulk is at least double that of the right. The organs of generation appear to be complete. An urinary bladder is found on each side. There are two kidneys, which, by their size, appear formed by the union of four kidneys. The left has two ureters, the right only one. It will appear from this description, that the cavities of the two pelves, opposed to each other, form the lateral parts of the common abdomen, and occupy its lumbar regions.

At the top of the inferior head, and a little to the right, a hole is observable, over which the bladder that had been cut off, was placed. This imperfect head presents an appearance of scalp covered with hair, and a cartilaginous body of an irregular form, which appears to be the rudiment of an external ear. The circulatory system has not been injected."

" *Geneva, August 21st, 1815.*"

A further examination of the fetus, after its arrival in England, was instituted by Drs. Marcet, Roget, and Mr. Lawrence, and the following additional particulars ascertained:—

"The aorta, produced from the heart, was contained in the chest of the superior or more perfect child; having passed the diaphragm, it divided into three branches for the supply of the inferior or less perfect trunk, and of the two lower halves. The left of these three arteries was much the largest; it produced the iliac vessels of the left pelvis and lower limbs, and was then continued to form a large umbilical artery, the only one which this double child possessed. The right branch supplied the right pelvis and lower limbs. The middle one ran along the spine of the inferior child, and divided into two vessels, which might be called arteriæ innominatæ; for each of them produced a small carotid, running along the imperfect inferior stump of a neck, and a subclavian artery, which went to the corresponding upper limb of the inferior child. On dividing the integuments of the back, at the part where the upper and lower halves of the fetus were united crosswise, the two vertebral columns were seen to end abruptly opposite to each other, and the two pelvises had the bases of their sacra turned towards each other. But there was a considerable interval between the extremities of the spines and the sacra, occupied by a firm membrane. When the latter was divided, the medulla spinalis was seen running across from one spine to the other, and distributing its branches laterally to the two lower halves; so that the two trunks had a single spinal marrow, and each of the pelvises, with its two lower limbs, received its nerves from the side of this single organ."

Presented by the Medico-Chirurgical Society, July 13, 1816.

196. The circulatory, respiratory, urinary, and generative organs of a female human twin monster fetus, born in October 1827.

The following account is extracted from a letter which accompanied the preparation.

CASE.—“A description of a Duplo-genesis, of which Mary, the wife of William Stockden, in the parish of Iron Acton, in the county of Gloucester, was delivered in October 1827. The woman was thirty-five years of age, and had, ten years previously, been delivered of a well-formed healthy child, still living.

“The external appearance, dimensions, &c. of the Duplo-genesis.

“It consisted of two heads thickly covered with hair ; four arms with the hands perfect ; two bodies united by their sides below the arms, forming one thorax with four nipples ; one umbilicus, and one umbilical cord, consisting of two veins and four arteries. There was but one pelvis ; and the external organs of generation, the anus, and the thighs, legs and feet, were those of a single fetus ; but there was an imperfectly formed additional lower extremity arising from the sacrum, and hanging over the anus.

“The weight of the monster was eleven pounds. The extreme length from the crowns of the heads to the toes, twenty-one inches ; from the root of the nose to the occiput, nine inches ; from one ear to the other, over the head, eight inches and three quarters ; the circumference of the head of the fetus of the right side, fourteen inches ; of that of the left side, thirteen inches ; of the two heads placed in juxta-position, twenty-one inches ; round the four shoulders, twenty-three inches ; round the body at the umbilicus, twelve inches and a half ; at the pelvis, eleven inches and a half.

“Appearances on Dissection.

“The integuments being raised from the chins to the umbilicus, a large irregular sternum was exposed, common to both fetuses, and into which were inserted four clavicles, and forty-eight ribs. The sternum being elevated, a thymus gland to each fetus appeared. The pericardium or pericardia contained two hearts, the apices of which were turned towards each other. They were so placed as to occupy the smallest possible space. Each had two auricles, and two ventricles, with the ar-

teries and veins proper to them. The descending aorta of each fetus gave off one iliac artery only.

“ Organs of Respiration.

“ There were distinct lungs, with their usual lobes to each fetus, separated from each other by pleura, and attached to their respective tracheæ, each receiving their blood-vessels from their proper heart. There was a single thick diaphragm, perforated by additional openings for a second œsophagus, vena cava, aorta, &c.

“ Organs of Digestion.

“ The abdomen contained two livers, with their concave sides opposed to each other; two gall-bladders, with the proper ducts; two spleens, two pancreases, two omenta, two stomachs, two duodena, two jejunæ, two ilea, all perfectly separate until within the space of about four inches from the cæcum, at which place the ilea united. The cæcum was large, and had two appendiculæ cæci vermiformes. The colon and rectum were single.

“ Generative and Urinary Organs.

“ There were two kidneys, with their renal capsules, having an ureter from each, leading to a separate urinary bladder; one of which was situated naturally, having a meatus opening into a vagina which led to an uterus situated between the bladder and rectum. Behind the rectum there was another bladder, and an imperfect uterus, attached by cellular substance to the intestine. The brain, nerves, and organs of loco-motion were to all appearance perfect.”

Presented by David Davies, Esq. May 6th, 1828.

197. A double-bodied monster Pig, with one perfect head, and eight extremities.

Hunterian.

198. A double-bodied monster Pig, in which the thoracic and abdominal cavities of the two bodies (which communicate with each other) are opened, exposing, in the former, the conjoined hearts.

Hunterian.

199. A similar double-bodied monster Pig.

Hunterian.

200. A similar specimen of a double-bodied Pig.

Presented by His Grace the Archbishop of Canterbury, Nov. 20th, 1830.

201. A double-bodied monster Pig. In this specimen there are evident rudiments of a second head, the palate being fissured longitudinally throughout its whole extent ; from one side of this division a septum descends to the lower jaw, becoming attached to it, and separating it into distinct parts, each possessing a well-formed tongue and teeth. The division of the lower jaw is visible through the integuments, externally. *Hunterian.*
202. A double-bodied monster Pig, conjoined from the umbilicus upwards. The heads are, as it were, pressed together, and united laterally. They present on one side a well-formed nose and mouth, about an inch above which the extremity of a second snout is seen projecting ; on the other side, where the occiputs unite, the two posterior ears are placed close together ; and the two central or approximated eyes are situated on the summit of the head. *Presented by J. Winterbottom, Esq. 1831.*
203. A double-bodied fetal Puppy, with a single head. It has four posterior, but only two anterior extremities. *Hunterian.*
204. A double-bodied Kitten, the head of which appears single, but, as in some of the preceding specimens, has the palate divided by a septum, which extends to the angle of separation of the two lower jaws. *Hunterian.*
205. A similar double-bodied Kitten. *Hunterian.*
206. A similar double-bodied Kitten. The thorax and abdomen are opened, to expose their contents : the heart appears single, as does also the liver ; but the rest of the abdominal viscera are duplex. The upper part of the skull has been removed to show the brain, which is single, but having two medullæ oblongatæ arising from it. *Hunterian.*
207. A double-bodied Kitten. *Hunterian.*
208. A Kitten, with four additional extremities attached to the abdomen ; between the two lowest of which an anus exists, and is marked by a bristle. *Hunterian.*
209. A similar specimen of monstrosity. *Hunterian.*
210. A similar specimen of monstrosity. *Presented by Mr. Belfour.*
211. A similar specimen of monstrosity. *Hunterian.*

212. A double-bodied Kitten, with a single head. *Mus. Brit.*
213. A similar specimen of monstrosity. *Hunterian.*
214. A similar specimen of monstrosity. *Hunterian.*
215. A similar specimen of monstrosity. *Hunterian.*
216. A similar specimen of monstrosity. *Hunterian.*
217. A similar specimen of monstrosity. *Hunterian.*
218. A similar specimen of monstrosity. *Hunterian.*
219. A double-bodied fetal Rabbit (*Lepus Cuniculus*), with a single head, which has an additional ear growing from the occiput. *Hunterian.*
220. A double-bodied fetal Mole (*Talpa Europæa*), with a single head. *Hunterian.*
221. The egg of a domestic Fowl, containing two yolks. *Hunterian.*
222. A similar specimen. *Hunterian.*
223. Two yolks from a Hen's egg, connected at their axes by a small pedicle. *Hunterian.*
224. Two yolks similarly united by an elongated pedicle. *Hunterian.*
225. A singularly malformed Hen's egg, which was laid in June, 1811. It has an elongation at each extremity. The hen had previously sustained an injury of the pelvis, and died shortly afterwards. *Presented by Mr. Clift. 1811.*
226. A malformed Hen's egg, with a similar elongation from one extremity. *Presented by Sir A. Carlisle. 1818.*
227. A small Egg, that was found inclosed within another perfect egg ; it is spherical in form, and covered by its proper shell. *Hunterian.*

Vegetables.

228. A double Apple (*Pyrus Malus*). *Hunterian.*
229. Three double Apples, from a tree growing near Romford in Essex ; and which, for several years, has produced a crop of similar double fruit. *Presented by Sir A. Carlisle. 1829.*

230. A Peach (*Amygdalus Persica*), gathered in a hot-house at Thames-Ditton, where it was growing in the vicinity of a nectarine tree : it had on one half of its surface, while recent, a strong resemblance in character and colour to a true nectarine, but retaining on the other the appearance of a peach. *Presented by Mrs. Robinson. 1817.*
231. A double Bean (*Phaseolus vulgaris*). *Hunterian.*
232. A Cucumber (*Cucumis sativus*), with a smaller one attached to it. *Hunterian.*
233. A similar specimen : they are united throughout their whole length by a thin semi-transparent septum. *Presented by Mr. Clift. 1829.*
234. A Fern leaf (*Asplenium Scolopendrium*), the extremity of which is bifid, gathered at Hastings in Sussex. *Presented by Mr. Clift. 1808.*
235. A double wild Hyacinth (*Hyacinthus non-scriptus*), from Hampstead Heath. *Presented by Mr. Clift. 1806.*

SERIES IV.—Hermaphroditical Malformation.

236. A Substance, apparently a testicle, inclosed in a tunica vaginalis. This and a similar body were found situated external to the abdominal rings in the groins of what had been considered to be, during life, a perfect female. Upon examination after death, the uterus and appendages were found to be deficient ; the bladder and rectum being in contact. The external organs appeared to be perfectly formed ; the labia and nymphæ were natural ; the clitoris, however, was preternaturally enlarged, being two inches in length, and three quarters of an inch in diameter. The vagina terminated in a cul-de-sac at about three inches from the vulva. *Presented by Sir A. Carlisle. 1827.*
237. A Substance in the place of a testicle of a ridgil horse. It is suspended by the cremaster muscle and vas deferens, the latter of which is obliterated at that extremity where the testicle should have been. *Hunterian.*
238. The organs of a Free Martin, or Hermaphrodite Cow. The parts exhibited

in the preparation are the following:—The clitoris, with its crura; the urethra and bladder; the body and horns of the uterus, which are impervious; the ovaria, one deprived of, the other inclosed in, its capsule; the interrupted parts of the vasa deferentia, with the spermatic vessels; the gubernaculum and beginning of the tunica vaginalis communis, into which is introduced a bristle, to show that it is hollow; the two ureters, and the vesiculæ seminales. *Hunterian.*

“This animal was between three and four years old when killed, and had never been observed to show any signs of desire for the male, although it went constantly with one, and looked more like a heifer than the free martins usually do.

“The teats and udder were small, compared with those of a heifer, but rather larger than in some of the other examples. The beginning of the vagina was similar to that of the cow, but soon terminated a little beyond the opening of the urethra. The vagina and uterus, to external appearance, were continued, although not pervious; and the uterine part divided into two horns, at the end of which were the ovaria.

“I could not observe in this animal any other body which I could suppose to be the testicle.

“There was on the side of the uterus an interrupted vas deferens, broken off in several places.

“Behind the bladder, or between that and the vagina, were the bags called vesiculæ seminales, between which were the terminations of the two vasa deferentia.

“The ducts of the bags and the vasa deferentia opened together. This could not be called an exact mixture of all the parts of both sexes, for here was no appearance of testicles. The female parts were imperfect, and there was the addition of part of the vasa deferentia, and the bags called vesiculæ seminales. This circumstance of having no testicles, perhaps, was the reason why it had more the external appearance of a heifer than what they commonly have.”—See Hunter on the Animal Œconomy, “Mr. Wells’s Free Martin,” p. 64, plate xi., also *Museum Drawings*.

239. The organs of generation of a Free Martin, which belonged to Charles Palmer, Esq., of Luckley in Berkshire.—See Hunter on the Animal Economy, p. 60. *Hunterian.*

240. The organs of generation of a Free Martin, showing the labia and the glans clitoridis; the inner surface of the common vagina, with the orifices of the ducts of two glands opening into it; the vagina, terminating in a blind end; the impervious uterus and horns; the testicles, the spermatic vessels, the cremaster muscles, and the vesiculæ seminales and their ducts, into which bristles are introduced. *Hunterian.*

“ Mr. Wright’s Free Martin, five years old.

“ This animal had more the appearance and general character of the ox, or spayed heifer, than of either the bull or cow. The vagina terminated in a blind end a little beyond the opening of the urethra, from which the vagina and uterus were impervious. The uterus, at its extreme part, divided into two horns. At the termination of the horns were placed the testicles instead of the ovaria, as is the case in the female. The reasons why I call these bodies testicles are the following:—First, they are above twenty times larger than the ovaria of the cow, and nearly the size of the testicles of the bull; or rather those of the ridgil, the bull whose testicles never come down. Secondly, the spermatic arteries were similar to those of the bull, especially of the ridgil. Thirdly, the cremaster muscle passed up from the rings of the abdominal muscles to the testicles, as it does in the ridgil. Although I call these bodies testicles, for the reasons given, yet they were only imitations of them; for when cut into, they had nothing of the structure of the testicle: not being similar to any thing in nature, they had more the appearance of disease. From the seeming imperfection of the animal itself, it was not to be supposed that they should be testicles, for then the animal should have partaken of the bull, which it certainly did not. There were the two vesiculæ seminales placed behind, between the bladder and the uterus: their ducts opened into the vagina, a very little way beyond the opening of the urethra; but there was nothing similar to the vasa deferentia.

“ As the external parts had more of the cow than the bull, the clitoris,

which may be reckoned an external part, was also similar to that of the cow; not at all in a middle state between the penis of the bull and the clitoris of the cow, as I have described in the hermaphrodite horse. There were four teats; the glandular part of the udder was but small.

“This animal cannot be said to have been a mixture of all the parts of both sexes, for the clitoris had nothing similar to the penis in the male, and it was deficient in the female parts, by having nothing similar to ovaria; neither had the uterus a cavity.”—See Hunter on the Animal Economy, p. 62, pl. viii. x., also *Museum Drawings*.

241. The organs of generation of a Free Martin, showing the labia and glans clitoridis, the vagina and ducts opening in it, the meatus urinarius and the vagina becoming contracted, and terminating in the uterus, the horns of which are only pervious a little way, the right testicle and vas deferens, and ovary deprived of its capsule; the opening of the ducts of the vesiculæ seminales, and vasa deferentia are marked by bristles.

Hunterian.

“Mr. Arbuthnot’s Free Martin.

“The external parts were rather smaller than in the cow. The vagina passed on, as in the cow, to the opening of the urethra, and then it began to contract into a small canal, which passed on to the division of the uterus into the two horns; each horn passing along the edge of the broad ligament laterally towards the ovaria.

“At the termination of these horns were placed both the ovaria and the testicles; they were nearly of the same size, and about as large as a small nutmeg. To the ovaria I could not find any Fallopian tube. To the testicles were vasa deferentia, but they were imperfect. The left one did not reach near to the testicle; the right only came close to it, but did not terminate in the epididymis. They were both pervious, and opened into the vagina near the opening of the urethra.

“On the posterior surface of the bladder, or between the uterus and bladder, were the two bags, called vesiculæ seminales in the male, but much smaller than they are in the bull; the ducts opened along with the vasa deferentia. This was more entitled to the name of hermaphrodite than Mr. Wright’s or Mr. Wells’s Free Martin; for it had a mixture of

all the parts, though all were imperfect.”—See Hunter on the Animal Economy, p. 63, pl. ix., also *Museum Drawings*.

242. The external and internal organs of generation of a Free Martin. Mr. Lock's. See *Museum Drawings*. *Hunterian*.

243. The testicles of a “monstrous Bull from Cornwall”; they are seen imbedded in a mass of fat above the teats, which are well formed, and four in number. There is no other record of this preparation. *Hunterian*.

244. The external organs of generation of the same animal: a quill indicates the urethra; the clitoris is seen, in its retracted state, at the posterior part of the preparation. *Hunterian*.

245. A lateral view of the contents of the pelvis of an hermaphrodite Calf or Free Martin. *Hunterian*.

246. The right ovarium of a Cow, supposed to have been a Free Martin, that was in the possession of Sir Robert Wigram at Walthamstow, in Essex. It had always, during life, shown a disposition for, and had taken the bull, but did never breed. On dissection, however, the female organs appeared to be naturally formed. The ovary is cut open.

Presented by Sir William Blizard. 1804.

247. The left ovarium of the same animal, also in section.

Presented by Sir William Blizard.

248. The testicle of a Free Martin. *Hunterian*.

249. The organs of generation of a perfect Cow-calf, that was a twin with a perfect Bull-calf.

In describing this specimen, Mr. Hunter says,—

“Although what I have advanced with respect to the production of Free Martins be in general true, yet by the assistance of Benjamin Way, Esq., of Denham, near Uxbridge, who knew my anxiety to ascertain this point; I was lately furnished with an instance which proves that it does not invariably hold good. One of his cows having produced twins, which were to appearance male and female, upon a supposition that the cow-calf was a Free Martin, he obligingly offered either to give it me, or keep

it till it grew up, that we might determine the fact. As I conceived it to be a Free Martin, and was to have the liberty of examining it after death, I desired that he would keep it; but unfortunately it died at about a month old. Upon examining the organs of generation, they appeared to be those of the female, and perfectly formed; but to make this more certain, I procured those of a common cow-calf, and comparing them together, found them exactly alike.”

Hunterian.

See Hunter on the Animal Œconomy, p. 60.

250. The external organs of generation of a hermaphrodite Ass (*Equus Asinus*), showing the clitoris and its prepuce, and the groove of the urethra.—The following is a notice of this preparation, from the *Animal Œconomy*, p. 58.

“ I procured a foal-ass, and killed it to examine the parts. It had two nipples, but the testicles were not come down; owing, perhaps, to the animal's being yet too young.

“ There was no penis, passing round the pubis, to the belly, as in the perfect male ass.

“ The external female parts were similar to those of the she-ass. Within the entrance of the vagina was placed the clitoris, but much longer than that of a true female, it measuring about five inches. The vagina was pervious a little beyond the opening of the urethra into it, and from thence up to the fundus of the uterus there was no canal.

“ The uterus was hollow at the fundus, or had a cavity in it, and then divided into two horns, which were also pervious. Beyond the termination of the two horns were placed the ovaria, as in the true female; but I could not find the Fallopian tubes. From the broad ligaments, to the edges of which the horns of the uterus, and ovaria, are attached, there passed towards each groin a part similar to the round ligaments in the female, which were continued into the rings of the abdominal muscles; but with this difference, that there accompanied them a process or theca of the peritoneum, similar to the tunica vaginalis communis in the male ass; and in these thecæ were found the testicles; but I could not discover any vasa deferentia passing from them.”—See *Museum Drawings*.

Hunterian.

251. The external organs of generation of a female Monkey, showing a preternatural enlargement of the clitoris. *Hunterian.*

252. A similarly enlarged clitoris from a female black Monkey; the uterus and ovaria are preserved, but the horns of the uterus are cut away.

Hunterian.

253. A partial section of the contents of the pelvis of a hermaphrodite Sheep from the West Indies, which had been considered as an ewe, from the circumstance of its voiding its urine backwards, in a similar manner to the female.

The parts shown in the preparation are; one of the nipples, the clitoris, which is much longer and more projecting than in the perfect ewe, the vagina, the bladder, the uterus and its horns, the testicle, epididymis, tunica vaginalis, &c.—See *Museum Drawings*.

254. The urinary and generative organs of a hermaphrodite Sheep. *Hunterian.*

255. The testicles of a hermaphrodite Dog, which were situated internally in the place of the ovaria, distinguished, however, to be testicles by the convolutions of the spermatic artery. From each of these passed down an impervious cord, or vas deferens, not thicker than a thread, to the posterior part of the bladder, where they united into one substance, which was nearly two inches long, and terminated behind the meatus urinarius.—See *Philos. Trans.* vol. lxxxix. p. 157. tab. iv. f. 1. 2.

Presented by Sir E. Home, Bart. 1802.

256. The clitoris of the same Dog. It is three quarters of an inch long, and half an inch in diameter; the orifice of the meatus urinarius is unusually large, as if intended as a common passage to the bladder and vagina; so that the only visible external parts are, the clitoris, meatus urinarius, and rectum. The animal had not the slightest appearance of nipples on the skin of the belly, so that in that respect it differed both from the male and female, nor was there the existence of any structure like the mammary gland beneath the skin.

Presented by Sir E. Home, Bart. 1802.

257. The external organs of an aged Dog, unusually formed. *Hunterian.*

258. The body of a hen-Pheasant (*Phasianus Colchicus*), which had assumed the plumage of the male. This specimen was preserved to show the state of the oviduct, in birds which had thus changed their sexual characters externally.

Mr. Hunter in his "Observations on the Animal Œconomy," p. 78, when describing this peculiar change, says,—

"Dr. Pitcairn having received a pheasant of this kind from Sir Thomas Harris, showed it as a curiosity to Sir Joseph Banks, and Dr. Solander. I, happening to be then present, was desired to examine the bird, and the following was the result of my examination. I found the parts of generation to be truly female; they being as perfect as in any hen-pheasant that is not in the least prepared for laying eggs, and having both the ova and oviduct. As the observations hitherto made have been principally upon birds found wild, little of their history can be known; but from what took place in a pheasant, in the possession of a friend of Sir Joseph Banks's, it appears probable that this change of character takes place at an advanced period of the animal's life, and does not grow up with it from the beginning. This lady, who had for some time bred pheasants, and paid particular attention to them, observed that one of the hens, after having produced several broods, moulted; when the succeeding feathers were those of a cock; and that this animal was never afterwards impregnated. Hence it is most probable, that all the hen-pheasants found wild, having the feathers of a cock, were formerly perfect hens, but have been changed by age, or perhaps by *certain constitutional circumstances*."—See *Museum Drawings*.

259. The male and female organs united; from the body of a hermaphrodite or androgynal Cod-fish (*Gadus morhua*).

Presented by Sir E. Home, Bart. 1802.

260. Similarly conjoined sexual organs, with the abdominal viscera injected, of an androgynal Cod-fish.

Presented by Sir A. Carlisle. 1821.

261. A similar specimen, from an androgynal Cod-fish, injected.

Presented by William Lynn, Esq. 1825.

262. A similar specimen of large size, from an androgynal Cod-fish, injected.
Presented by J. G. Children, Esq. 1829.
263. A similar specimen, probably from a small Cod-fish. *Mus. Brit.*

PREPARATIONS IN A DRIED STATE.

SERIES I. Addition of Parts.

Sub-series 1. Head.

264. Two skulls united by their vertices, of a double-headed male Child, born in May 1783, at Mungulhaut, in the province of Burdwan, in Bengal ; and which was more than four years old at the time of its death, which was occasioned by the bite of a Cobra de Capello.

The following history of this remarkable case is extracted from the *Philos. Trans.* vol. lxxx. p. 296.

“ An account of a Child with a double head. In a letter from Everard Home, Esq. F.R.S. to John Hunter, Esq. F.R.S. Read March 25, 1790.

“ Dear Sir,—I feel a particular satisfaction in having been enabled, through the kind attention of my friend Captain Buchanan, to add to your invaluable collection the very uncommon double skull of a monstrous child, born in the East Indies, which attracted the attention of all the curious in Calcutta, where it was shown alive ; and, should the account of it appear to you of sufficient importance, I shall request that you will do me the honour of laying it before the Royal Society.”——“ The following account of the child, when six months old, I was favoured with from Sir Joseph Banks ; who, from the hand-writing, and other circumstances, believes that it was written by the late Colonel Pierce. I have, however, been less solicitous to ascertain the author, as the observations contained in this account agree so entirely with the remarks that were afterwards made, and with the appearances of the skull, that they require no name being

annexed to them, in confirmation of their having been made with accuracy and fidelity.

“ The child was born in May 1783, of poor parents ; the mother was thirty years old, and named Nooki ; the father was called Hannai, a farmer at Mungulhaut, near Burdwan, in Bengal, and aged thirty-five.

“ At the time of the child’s birth, the woman who acted as widwife, terrified at the strange appearance of the double head, endeavoured to destroy the infant by throwing it upon the fire, where it lay a sufficient time before it was removed, to have one of the eyes and ears considerably burnt.

“ The body of the child was naturally formed, but the head appeared double, there being, besides the proper head of the child, another of the same size, and to appearance almost equally perfect, attached to its upper part. This upper head was inverted, so that they seemed to be two separate heads, united together by a firm adhesion between their crowns, but without any indentation at their union, there being a smooth continued surface from one to the other.

“ The face of the upper head was not over that of the lower, but had an oblique position, the centre of it being immediately above the right eye.

“ When the child was six months old, both of the heads were covered with black hair, in nearly the same quantity. At this period the skulls seemed to have been completely ossified, except a small space between the ossa frontis of the upper one, like a fontinelle.

“ Observations on the Superior or Inverted Head.

“ No pulsation could be felt in the situation of the temporal arteries ; but the superficial veins were very evident.

“ The neck was about two inches long, and the upper part of it terminated in a rounded soft tumour, like a small peach.

“ One of the eyes had been considerably hurt by the fire, but the other appeared perfect, having its full quantity of motion ; but the eye-lids were not thrown into action by any thing suddenly approaching the eye ; nor was the iris at those times the least affected ; but, when suddenly exposed to a strong light, it contracted, although not so much as it

usually does. The eyes did not correspond in their motions with those of the lower head, but appeared often to be open when the child was asleep, and shut when it was awake.

“ The external ears were very imperfect, being only loose folds of skin, and one of them mutilated by having been burnt. There did not appear to be any passage leading into the bone which contains the organ of hearing.

“ The lower jaw was rather smaller than it naturally should be, but was capable of motion. The tongue was small, flat, and adhered firmly to the lower jaw, except for about half an inch at the tip, which was loose. The gums in both jaws had the natural appearance ; but no teeth were to be seen either in this head or the other.

“ The internal surface of the nose and mouth were lubricated by the natural secretions, a considerable quantity of mucus and saliva being occasionally discharged from them.

“ The muscles of the face were evidently possessed of powers of action, and the whole head had a good deal of sensibility, since violence to the skin produced the distortion expressive of crying, and thrusting the finger into the mouth made it show strong marks of pain. When the mother's nipple was applied to the mouth, the lips attempted to suck.

“ The natural head had nothing uncommon in its appearance ; the eyes were attentive to objects, and its mouth sucked the breast vigorously. Its body was emaciated.

“ The parents of the child were poor, and carried it about the streets of Calcutta as a curiosity to be seen for money ; and to prevent its being exposed to the populace they kept it constantly covered up, which was considered as the cause of its being emaciated and unhealthy.

“ Mr. Stark, who resided in Bengal during this period, paid particular attention to the appearances of the different parts of the double head, and endeavoured to ascertain the mode in which the two skulls were united, as well as to discover the sympathies which existed between the two brains. Upon his return to England, finding that I was in possession of the skull, and proposed drawing up an account of the child, he very obligingly favoured me with the following particulars :—

“ At the time Mr. Stark saw the child, it must have been nearly two two years old*, (the dentes molares, or double teeth, which usually appear at twenty months or two years of age, were through the gum; and there was no reason to expect them very early in this child,) and was some months before its death, which I have every reason to believe happened in the year 1785. At this period the appearances differed in many respects from those taken notice of when only six months old.

“ The burnt ear had so much recovered itself as only to have lost about one-fourth part of the loose and pendulous flap. The openings leading from the external ear appeared as distinct as in those of the other head. The skin surrounding the injured eye, which was on the same side with the mutilated ear, was in a slight degree affected, and the external canthus much contracted, but the eye itself was perfect.

“ The eye-lids of the superior head were never completely shut, remaining a little open, even when the child was asleep, and the eye-balls moved at random. When the child was roused, the eyes of both heads moved at the same time; but those of the superior head did not appear to be directed to the same object, but wandered in different directions. The tears flowed from the eyes of the superior head almost constantly, but never from the eyes of the other, except when crying. The termination of the upper neck was very irregular, a good deal resembling the cicatrix of an old sore.

“ The superior head seemed to sympathise with the child in most of its natural actions. When the child cried, the features of this head were affected in a similar manner, and the tears flowed plentifully. When it sucked the mother, satisfaction was expressed by the mouth of the superior head, and the saliva flowed more copiously than at any other time; for it always flowed a little from it. When the child smiled, the features of the superior head sympathised in that action. When the skin of the superior head was pinched, the child seemed to feel little or no pain, at least not in the same proportion as was felt from a similar violence being committed on its own head or body.

* See the note at the end of the Case.

“When the child was about two years old*, and in perfect health, the mother went out to fetch some water; and, upon her return, found it dead, from the bite of a *Cobra de Capello*. The parents at this time lived upon the grounds of Mr. Dent, the Honourable East India Company’s agent for salt at Tumloch, and the body was buried near the banks of the Boopuorain river. It was afterwards dug up by Mr. Dent and his European servant, the religious prejudices of the parents not allowing them to dispense with its being interred.

“The two skulls which compose this monstrous head appear to be nearly of the same size, and equally complete in their ossification, except a small space at the upper edge of the *ossa frontis* of the superior skull, similar to a fontinelle. The mode in which the two are united is curious, as no portion of bone is either added or diminished for that purpose; but the frontal and parietal bones of each skull, instead of being bent inwards, so as to form the top of the head, are continued on; and, from the oblique position of the two heads, the bones of the one pass a little way into the natural sutures of the other, forming a zig-zag line, or circular suture uniting them together.

“The two skulls appear to be almost equally perfect at their union; but the superior skull, as it recedes from the other, is becoming more imperfect and deficient in many of its parts.

“The meatus auditorius in the temporal bone is altogether wanting.

“The basis of the skull is imperfect in several respects, particularly in such parts as are to connect the skull with a body. The foramen magnum occipitale is a small irregular hole, very insufficient to give passage to a medulla spinalis; round its margin are no condyles with articulating surfaces, as there were no vertebræ of the neck to be attached to it. The foramen lacerum in basi cranii is only to be seen on one side, and even there too small for the jugular vein to have passed through.

“The *ossa palati* are deficient at their posterior part; the lower jaw is too small for the upper, and the condyle and coronoid process of one side are wholly wanting.

* See the note at the end of the Case.

“In most of the other respects the skulls are alike; the number of teeth in both is the same, and is sixteen.

“From an examination of the internal structure of the double skull, the two brains have certainly been inclosed in one bony case, there being no septum of bone between them. How far they were entirely distinct, and surrounded by their proper membranes, cannot now be ascertained; but from the sympathies which were taken notice of by Mr. Stark between the two heads, more particularly those of the superior with the lower, or more perfect, I should be inclined to believe, that there was a more intimate connection between them than simply by means of nerves, and therefore that the substance of the brains was continued into one another.

“Had the child lived to a more advanced age, and given men of observation opportunities of attending to the effects of this double brain, its influence upon the intellectual principle must have afforded a curious and useful source of enquiry; but unfortunately the child only lived long enough to complete the ossification of the skull, so as to retain its shape; by which means we have been enabled to ascertain and register the fact, without having enjoyed the satisfaction that would have resulted from an examination of the brain itself, and a more mature investigation of the effects it would have produced.

“*May 22nd, 1790.*”

Note.—The following further particulars were communicated to Sir E. Home by Mr. Dent upon his return to England.

“Its father told Mr. Dent that it was more than *four years* old at the time of its death.

“The mother, who was thirty years of age, had three children, all naturally formed; and her fourth child was the subject of the present description. Mr. Dent endeavoured to discover whether any imaginary cause had been assigned by the parents for the unnatural formation of the child; but the mother declared that no circumstance whatever of an uncommon nature had occurred: she had no fright, met with no accident, and went through the period of her pregnancy exactly in the same way as she had done with her other children.

"The body of the child was uncommonly thin, appearing emaciated from want of due nourishment.

"The neck of the superior head was about four inches long; and the upper part of it terminated in a hard, round, gristly tumour, nearly four inches in diameter.

"The front teeth had cut the gums in the upper and under jaws of both heads.

"When the child cried, the features of the superior head were not always affected; and when it smiled, the features of the superior head did not sympathise in that action.

"In preparing the skull, which operation Mr. Dent was obliged, from the prejudices of his servants, to superintend, he found that the dura mater belonging to each brain was continued across at the part where the two skulls joined, so that each brain was invested in the usual way by its own proper coverings; but the dura mater, which covered the cerebrum of the upper brain, adhered firmly to the dura mater of the lower brain; the two brains were therefore separate and distinct, having a complete partition between them, formed by an union of the duræ matres.

"When the contents of the double skull were taken out, and this union of the duræ matres more particularly examined, a number of large arteries and veins were seen passing through it, making a free communication between the blood-vessels of the two brains. This is a fact of considerable importance, as it explains the mode in which the upper brain received its nourishment.

"Before these observations were communicated by Mr. Dent, it was natural to suppose that the two brains had been united into one mass; as it was difficult to imagine in what way the upper brain could be supplied with blood."

"December 13th, 1798."

See *Museum Drawings*.

265. A double human incisor Tooth.

Hunterian.

266. Two tusks from one side of the upper jaw of a young Elephant (*Elephas Indicus*). They are closely united together throughout their whole length,

their cavities which contained the vascular pulps communicate with each other laterally. *Hunterian.*

267. The united skulls of a double-headed Calf. The junction is by the occipital bones, which form a single foramen magnum, to which the atlas has been left attached. *Hunterian.*

See No. 20, Monsters in Spirit, for the united cerebella of these skulls.

268. Two heads of a fetal monstrous Lamb. They are united by their occiputs, and terminate in one neck. *Hunterian.*

269. The head of a Lamb at the birth. On the right side of the neck, in the space between the angle of the jaw and the meatus auditorius externus, two well-formed incisor teeth project behind a small flap of integument. On the opposite side of the neck, occupying nearly the same relative position, a single incisor tooth projects in a similar manner. *Hunterian.*

270. The ear of a Sheep, having a horny excrescence an inch and three-quarters in length, growing from its external surface.

Presented by Sir E. Home, Bart.

271. The head of a Cow, with an additional horn growing from the centre of the forehead, immediately between the eyes. It arises by a broad base, and forms an elevated crest, extending forwards as far as the extremity of the nose; it is hollow or concave upon its inferior surface, and is composed of a loose fibrous structure. The diameter of the horn at its widest part is nine inches and a quarter. *Hunterian.*

272. A supernumerary horn from a Cow. *Hunterian.*

273. A double horn from a Goat (*Capra Hircus*). *Hunterian.*

274. The head of a Bird of the accipitrine order, with an additional and well-formed mandible, arising at a short distance anterior to the eyes, and its apex extending to the external apertures of the nares in the true beak. (Marked "Dincheera.") *Hunterian.*

Sub-series 2. Trunk and Extremities.

275. A human Sternum, having the cartilages of *eight* ribs separately attached to it on each side. *Hunterian.*

276. A human fourth true Rib of the left side : it is bifid for the extent of two inches and a half at its sternal extremity, the cartilages of which unite, and have but a single attachment to the sternum. *Hunterian.*
277. Some of the metacarpal bones and phalanges of a distorted human Hand. (Imperfect.) *Hunterian.*
278. Bones of a distorted human Hand. (Imperfect.) *Hunterian.*
279. The bones of the pelvis and legs of a Monkey, which had the rudiments of a third inferior extremity existing on the left side. There is a partial division of that side of the pelvis into an imperfectly developed additional acetabulum, ischium, and foramen innominatum ; the ilium, however, is not affected by the duplex state of the other bones. As regards the extremity, the femora are united into one broad bone, with slight indications of a secondary head and great trochanter at its proximal extremity ; there are two fibulæ, both of which are placed on the outer side of the tibia, which is single, and to the head of which the intermediate bone, which is much smaller than natural, is attached by ligament ; all three bones articulate with one astragalus ; the extremity terminates in a double foot, of which the additional one is composed of four toes. *Hunterian.*
280. The sternum of a Sheep, distorted in shape, and irregular in the number of pieces into which it is divided, having seven instead of the usual number of six. The third bone which composes it, gives attachment to three ribs. *Hunterian.*
281. The pelvis and bones of the posterior legs of a Sheep, with an additional extremity growing from the pubis, the bones of which are separated to a considerable distance from each other, and the intermediate space occupied by the rudiment of a second pelvis, in form somewhat resembling a sacrum, and, to the base of which, is attached an imperfectly developed femur and distorted tibia : from this point forwards, the bones composing the tarsus, metatarsus, and phalanges are duplex ; the bones of the first are anchylosed in one mass, but their division is distinctly marked by the two calces. *Hunterian.*
282. The anterior part of the skeleton of the trunk of a young Cow, with a

considerable distortion of the spine, at that point, where, connected with the upper part of the left scapula, and anchylosed with the fourth rib of the same side, there is an irregular mass of bone, apparently formed by the conjunction of two additional scapulæ, though but little resembling those bones, except by the attachment afforded to a supernumerary leg, composed of an imperfectly formed humerus, ulna, and radius, all of which are united firmly together by anchyloses. To the extremity of the radius a carpal and metacarpal bone are attached, to which, phalanges, both ill-formed and deficient in number, are connected; a metacarpal bone with two phalanges are attached to the corresponding end of the ulna.

Hunterian.

283. A monstrous and supernumerary extremity which grew from the shoulder of a Cow. It possesses two separate and imperfectly formed hoofs, which terminate in a point.

Hunterian.

284. A horn, thirty-seven inches in length, and ten inches and a half at its greatest circumference, which grew from the groin of a Sheep.—See No. 39, Monsters in Spirit.

Hunterian.

285. A double foot of a monstrous Pig (*Sus domesticus*).

Hunterian.

286. The right fore-foot of a Pig, with an additional or supernumerary foot attached to the carpus.

Presented by Sir Wm. Blizard. 1813.

287. The foot of a Pig, with an additional posterior toe.

Hunterian.

288. A Lark (*Alauda arvensis*), with an imperfect supernumerary leg growing from the pelvis.

Presented by Lord Bagot. 1818.

289. The foot of a Fowl (*Phasianus Gallus*), with a supernumerary toe attached to it. At the extremity of the middle or longest toe, also, there is an additional talon growing from it at a right-angle.

Hunterian.

Sub-series 3. Organs of Circulation.

290. A human adult Heart, injected, showing an irregularity in the mode of origin of the right carotid and subclavian arteries, which arise from the arch of the aorta by separate trunks.

Hunterian.

291. The heart of a Child, injected, with some of the dorsal and the cervical

vertebræ attached, showing an irregularity in the mode of origin of the vertebral artery of the left side; it arises by a separate trunk from the arch of the aorta between the left carotid and subclavian arteries.

Presented by Sir William Blizard.

Sub-series 4. Organs of Digestion.

292. The stomachs and united intestines of a human female twin monster Fetus. The small intestines unite at about the distance of four inches from the cæcum, which is of large size, and has two appendiculæ vermiformes cæci. The colon and rectum are single.

Presented by David Davies, Esq. 1828.

The duplex circulating, respiratory, urinary, and sexual organs, are at No. 196, Preparations of Monsters in Spirit.

293. A Diverticulum from the human small intestines; probably from the intestinum ileum, which is the intestine in which this most frequently occurs, according to Mr. Hunter's observation.

Presented by Wm. Pretty, Esq. 1820.

294. A similar specimen of Diverticulum, from the human small intestines.

Presented by Wm. Pretty, Esq. 1820.

295. A Diverticulum, from the human small intestines. *Hunterian.*

296. A Diverticulum, from the human small intestines. *Hunterian.*

297. A similar specimen.—Human. *Hunterian.*

298. A similar specimen.—Human. *Hunterian.*

Sub-series 5. Urinary Organs.

299. A human Kidney, with double ureters. *Hunterian.*

300. A similar specimen. *Hunterian.*

301. A double urinary Bladder, from an Antelope. *Hunterian.*

SERIES II. Deficiency of Parts.

Sub-series 1. Head.

302. The skull of a fetal monstrous and apparently hydrocephalous Lamb; with the pelvis and some of the bones of the extremities.

The skull terminates in an abrupt manner, at the distance of about two inches anterior to the orbits, by two widely separated superior maxillæ, and presents a singularly distorted and defective appearance: the cavity of the antrum of either side is increased to an extraordinary size, particularly the right, which is scarcely inferior to the cranial cavity itself. The palatal space formed by the separation of the superior maxillæ is occupied by two irregular masses of bone of a spongy texture, which become exceedingly thin towards their posterior part, and resemble exposed turbinated bones. There is an imperfect septum between the nares, which open externally in the situation usually occupied by the roots of the nasal bones. By this want of projection of the skull, when viewed in profile, it bears a marked resemblance to that of the elephant.

The bones of the legs are exceedingly short, but not otherwise malformed. *Hunterian.*

303. The skull of a fetal monocular Lamb. *Mus. Brookes.*

304. The head of a calf of the Red-deer (*Cervus Dama*), at the birth. A white variety, the lower jaw of which is preternaturally short.

The following is an extract from a letter by the Earl of Egremont, which accompanied the specimen:

“ I now add a short statement of the facts which induced Mr. André and myself to preserve this specimen of a sort of regularity in the irregularities of nature. There was at Petworth, besides the present park, another very extensive park in a wild forest state, and stocked with a large herd of red deer, which I destroyed not many years ago, and the land is now in cultivation. It frequently happened that a calf was born milk-white; I believe upon the average of years it was about one a year from forty or fifty hinds. These white calves appeared to be perfectly

strong and healthy at their birth, but never lived beyond the first or second day; and as I had heard of the same thing in other parks where red deer were kept, it excited my curiosity, and I made enquiries upon the subject. My park-keeper told me that he had attended to this circumstance of the white calves, and that if we would examine all that were born we should find in them all the same defect, which is very visible in the specimen which I have sent,—the shortness of the under jaw, by which they are prevented from compressing the udder of the hind to extract the milk, and of course die from want of nutriment. We examined several, and found them all as his observation had predicted. Mr. André dissected some, and he told me that all their organs were perfect, except this defect in the under jaw; and it was in consequence of these facts that we determined upon preserving the specimen which I am very happy to be allowed to place in hands, where, if it has any thing to interest the naturalist, it will be much better than in mine.”

“ *Petworth, Nov. 10th, 1808.*”

305. The skull of a Calf, in which there is a deficiency of palate, and a considerable shortening and distortion of the lower jaw, by which the incisor teeth are brought in contact with the molares of the upper jaw; the right superior maxillary bone also projects outwards in an unnatural manner.

Hunterian.

Sub-series 2. Trunk and Extremities.

306. The skeleton of a human Fetus at about the seventh month of gestation, with total deficiency of the right arm; the left is but a rudimental member, scarcely three inches in length, and composed of five joints or portions of bone united together by cartilage.

Presented by Sir William Blizard. 1811.

307. A human Sternum, to which the first and second ribs on the left side are attached by a single cartilage.

Hunterian.

308. The vertebræ of the tail of a Malay or Madagascar Cat (*Felis Catus*, var.), having the extremity considerably distorted. The deficiency in length, and the distortion of the tail, do not appear to be the result of a casual

imperfection in its development, but forms one of the constant and specific characters in this animal. *Presented by George Bennett, Esq. 1831.*

309. A similar specimen. *Presented by George Bennett, Esq. 1831.*

310. The spine and ribs of a fetal Calf, having but ten sterno-costal cartilages existing on the right side, in consequence of the ninth and tenth, and also the eleventh, twelfth, and thirteenth ribs of that side being connate, at the distance of about an inch from their articulation with the spine, and forming but two abdominal extremities. *Hunterian.*

311. The skeleton of a Pigeon, hatched with only one leg; that of the left side, with the acetabulum, are totally deficient. The bird was shot at Berkeley in Gloucestershire. *Presented by the late Dr. Jenner. 1802.*

Sub-series 3. Organs of Digestion.

312. The hepatic and cystic ducts of a Child, in which the gall-bladder was deficient: the cystic duct is convoluted in a spiral form. *Hunterian.*

Sub-series 4. Urinary Organs.

313. A portion of a human aorta and vena cava, showing a deficiency of the renal vessels and kidney on the right side. The bladder, in which the single ureter of the left kidney terminates, is left attached. *Hunterian.*

314. A horse-shoe Kidney, from an adult human subject. *Hunterian.*

Sub-series 5. Deficiency with Addition.

315. An acephalous fetal Duck (*Anas Boschus*), with an additional pair of legs and wings; the upper mandible is also very defective. *Hunterian.*

Sub-series 6. Deficiency with Union.

316. Twin fetal Lambs united, the junction extending to the umbilicus. One of the conjoined heads is a perfect cyclops; the other head is more perfect, having two orbits; but in both there is considerable malformation, and deficiency of parts in the upper jaw. *Hunterian.*

SERIES III. Hermaphroditical Varieties.

317. The penis and urinary bladder of a hermaphrodite Ass. *Hunterian.*

318. The head and neck of a Hen-pheasant, which has assumed the male plumage. See Hunter, *Philos. Trans.* vol. lxx. p. 532. *Hunterian.*

In a paper in the *Philosophical Transactions* for the year 1827, p. 268, intitled "On the Change in the Plumage of some Hen-pheasants," by William Yarrell, Esq. F.L.S., read May 10th, 1827,—after citing the opinions of several authors, that this change was consequent upon the advanced age of the bird, he says, "Chance, rather than design, having supplied me with many opportunities of observation, both on pheasants and the common domestic fowl, I am induced to notice the internal peculiarities that have been observed invariably to accompany this change of feather, and such other circumstances as appear connected with this subject, some of which I think will be found new and interesting."—"The remarks I shall have occasion to introduce, will be found somewhat at variance with the opinions of the writers referred to, who appear to consider that age is absolutely necessary to produce this change: I shall be able to show, that certain constitutional circumstances* producing this change, may, and do, occur at any period during the life of the fowl, and that they can be produced by artificial means.

"Besides various opportunities during former seasons, I had the advantage, in the months of December and January last, of examining seven hen-pheasants, in plumage more or less resembling the male, in all of which the sexual organs were diseased, but with some variation as to extent; and the progress of change observable in the plumage bore a corresponding analogy. The ovarium was contracted in size, of a purple colour, and hard to the touch; the oviduct was also diseased throughout its whole length, and the canal obliterated at the upper part immediately preceding the funnel-shaped enlargement at the bottom of the ovarium.

* Mr. Hunter, in speaking of this change of plumage, states, that "it is most probable, that all the hen-pheasants found wild, having the feathers of a cock, were formerly perfect hens, but have been changed by age, or perhaps by *certain constitutional circumstances*"; and does not appear to attribute it to the effect of age exclusively.—See "*Animal Economy*," p. 78.

“That the obliteration of the true character of the female organs by disease, and the consequent alteration of feather, takes place at various periods, are inferred from the following circumstances.—Among the large broods of young pheasants, frequently from fifty to one hundred birds in number, which some gamekeepers are exceedingly successful in rearing by hand, produced from eggs laid by birds in confinement, nests deserted from various causes, or eggs exposed by mowing; it is by no means unusual in the months of August and September, when the young birds put forth the first plumage indicative of the sex, that one or two females are observed to produce the brightest coloured feathers of the male. These birds are then about four months old only. In two instances, among the hen-pheasants before mentioned, as shot in a wild state, some of the first plumage, usually called nest feathers, had not been shed, evidence sufficient to prove that they also were both birds of the year.

“The assumption of plumage decidedly resembling that of the male, must not, however, be confounded with accidental varieties. All variations of feathers are not caused by an alteration of the sexual organs. I have examined several birds of various species, in which those parts were perfectly healthy; but such birds are generally smaller than the natural size of the species to which they belong; and the variety of plumage in them probably originates in an imperfect secretion arising from weakness. That this disease arises at later periods during the life of the bird, but still long previous to a natural cessation of the powers of reproduction as a female, seems almost certain, from the circumstance, that in some of the preparations of the parts of the hen-pheasants examined, the globular forms of numerous ova are still apparent, but altered in colour; from which it would appear probable, that had not this disease occurred, these embryos would in due season have been matured and deposited.

“Having shown that a particular change of feather follows the destruction of the sexual organs by disease, I shall proceed to describe the effects produced upon both sexes of the common fowl, when obliteration of the same parts is effected by artificial means, that is to say, by an operation.

“ The breeder of poultry, who practises the art of making capons, is apprised, by the attempts of the young bird to crow, that a sufficient enlargement of the testes has taken place to enable him to perform the operation of extraction with ease and certainty; but this act completed, the bird never crows after.

“ The comb and gills do not attain a size equal to those of other males not subjected to this operation; the spurs appear, but remain short and blunt; and the long narrow feathers of the neck and lower part of the back, so characteristic in the true male, put on an appearance in this bird, intermediate between the hackled appearance in the cock, and the ordinary web of the hen.

“ The operation performed on the female of the common fowl is much more simple than might be expected. It consists in making a small incision through the thin skin of the flank on the left side: the oviduct, which lies immediately within, is thus easily brought into view; and it is then only necessary to cut away a small portion of it, that the continuity of the canal may be destroyed. The ova do not afterwards enlarge, and the connection between the sexual organs and those of the voice are not less remarkable in the females than that before observed to exist in the male. She makes an imperfect attempt to imitate the crow of the cock, there is an increase in the size of the comb, and a spur or spurs shoot out, but remain short and blunt. The plumage undergoes an alteration, which is called by the breeders getting foul-feathered, becoming hackled in form and altered in colour. But a more singular point is, the peculiar shape of the lower part of the back in these birds, from the want of that enlargement of the bones, observed in all true females, by which they obtain a breadth of pelvis sufficient to allow a safe passage to the perfect egg, an object the more particularly necessary, when it is recollected that a slight fracture of its brittle shell is sufficient to prevent the development of the chick.

“ Thus, males and females, becoming as it were neuter in gender by the deprivation of the sexual organs, put on a corresponding appearance, and both assume characters decidedly intermediate between the true sexes.

“ Returning again to the subject of hen-pheasants that are said to exhibit the feathers of the cock, it may be stated generally, that at best it is but an approximation to the plumage of the male.

“ It is probable that they do not live many years after the commencement of the change, since so few are found to arrive at any great degree of splendour. Of the many I have had opportunities of examining, none possessed either the full-sized broad scarlet patch round the eye, the fine blue zone at the end of the red feathers of the breast, or much of the bright straw-coloured mark on the scapulars and wing-coverts, one specimen alone excepted; nor have I seen a female pheasant with spurs.

“ From these observations it will probably be granted that age is not necessary, but that this disease, with its consequences, may arise at any period during life; and that the changes in the external character, depending on the destruction of the sexual organs, may be effected by artificial means.”

319. An old Pea-hen (*Pavo cristatus*), which has assumed the plumage of the male bird; the oviduct upon dissection was found to be exceedingly small and shrivelled. *Presented by the Countess Dysart. 1818.*

CASTS, &c.

320. A plaster cast of the parts connected with an eversion of the Bladder, and a deficiency of the greater part of the Penis. The case (which is analogous to that of No. 136, *Monsters in Spirit*, which see,) is described by Dr. Baillie in *Trans. Med. and Chirurg. vol. i. p. 189.* “Of a remarkable Deviation from the natural Structure in the Urinary Bladder and Organs of Generation of a Male.”—Jan. 18th, 1790. *Hunterian.*
321. A plaster cast of a human Double Uterus impregnated.—See No. 61, *Monsters in Spirit.* *Hunterian.*
322. A cast in wax of the Band uniting the bodies of the Siamese twins, who were exhibited in London in 1830.
Presented by George Buckley Bolton, Esq. 1830.
They were born in May 1811, in the kingdom of Siam, at Maklong,

a small village sixty miles distant from the capital, Bangkok, and were the offspring of Chinese parents; they were named Chang and Eng. "The mother is stated by Captain Coffin (who brought the twins to England) to be about five feet seven inches in height, well formed, with large hips, and, for her country, a strong woman. She was thirty-five years of age when her twins were born, and had previously given birth to several other children, none of whom had any malformation. She declared to Captain Coffin that she suffered less during her pregnancy with these than on any similar occasion, and also, that her labour was not attended with the least difficulty. She further stated that the twins were born with the head of one between the legs of the other, and were rather small infants."

"The band of union is formed in the following manner.—At the lowest part of the sternum of each boy, the ensiform cartilage is bent upwards and forwards, meeting the other in the middle of the upper part of the band, where moveable joints exist, which admit of vertical as well as lateral motion; each junction appearing to be connected by ligamentous structures. It is difficult to define precisely where the respective cartilages from each body meet, and whether a slip from one of the cartilages of the false ribs enters into the structure of these parts; but it is certain that the ensiform cartilages have assumed an extended and altered figure. This cartilaginous portion occupies the upper region of the band. The outline of the band is convex above, and arched below. Under the cartilage, while they stand in their ordinary posture, are large hernial sacs opening into each abdomen, and into which, on coughing, congenital herniæ are forced; probably, in each boy formed by a portion of the transverse arch of the colon: generally, however, and under ordinary circumstances, these herniæ are not apparent. Whether there is a communication between the two abdominal cavities, or a distinct peritoneal sac belonging to each hernia, is by no means obvious; and this is a point of vital importance, if ever, by their mutual desire, a surgical separation should be contemplated. If, however, any such operation hereafter be strongly requested by both the youths, when arrived at years of discretion, and after they have been fully apprised of its danger, it will be

essential that some preliminary steps be taken to provide against the exposure of either or both of the abdominal cavities.

“When these herniæ protrude, their respective contents are pushed forwards as far as the middle of the band. The entire band is covered with common integument; and when the boys face each other, its length at the upper edge is one inch and three quarters, and at the lower, not quite three inches. From above downwards, it is three inches and a quarter, and its greatest thickness is one inch and five-eighths. In the centre of the lower part of this band, which presents a thin edge, formed only by skin and cellular substance, there is the cicatrix of a single navel, showing where the umbilical cords or cord had entered, and which I have no doubt contained two sets of vessels*. Small blood-vessels and nerves must of course traverse the substance of the band, but no pulsation can be detected in it.

“Captain Coffin and Mr. Hunter were informed by the mother of the twins, that soon after their birth, and during the period of infancy, this band was much larger in proportion to the size of their bodies than it is at the present time: it had then no hard cartilaginous feel at its upper margin; it was also larger in circumference, and the bodies of the twins were nearer in contact; but from continued stretching it has become elongated, and its circumference has diminished. In their own country they were employed to row a boat, for which purpose both stood at the stern, each using a one-handed oar, an exercise which must have assisted greatly in stretching the band. It is now remarkably strong, and possesses little sensibility; for they have been formerly pulled by a rope

* “It has been asserted, that ‘these twins are the produce of a single ovum, and grew upon one placenta, by one umbilical cord;’ but of this there does not appear to be any evidence. By permission of the Board of Curators, I have had an opportunity of examining a preparation of united female twins, now in the museum of the Royal College of Surgeons in London. The union extends from the lower part of the sternum of each twin to the navel; and there is one umbilical cord common to both. On dissection, the following appearances were observed.—The umbilical vein in its course towards the twins is divided into two nearly equal sized branches, the division taking place at about one inch and three quarters from the umbilicus; one branch passing upwards in front to the porta of the anterior liver, and the other behind to its proper liver. The number of arteries is four, two from each foetus, which are included in the same theca with the umbilical vein as far as the body, retaining the appearance of an ordinary funis.

fastened to it, without complaining of pain, or expressing any uneasiness. In the month of February last one of them fell out of bed while asleep, and hung by the band for some time, and when both awoke, they alike stated, that they experienced no pain in the band from this accident. Mr. Hale, their constant attendant, has lifted one of them from the ground, allowing the other to hang by the band with his feet raised from the floor; yet the whole weight of one of the boys thus suspended, did not occasion pain to either, or even excite their displeasure."—The preceding extract is from a paper by G. B. Bolton, Esq., in the *Philosophical Transactions* for 1830, p. 177.

323. A model in clay of A-ke, a Chinese monster, born in the district of Yun-lang-yuen, about two days journey from Canton, in the year 1804.

Presented by Honoratus L. Thomas, Esq. 1822.

The following is an extract from the account of this *lusus naturæ*, by John Livingstone, Esq., Surgeon to the British Factory, China, December 8th, 1820.

"When I was first informed that a monster was to be seen in a temporary inclosure near St. Agostinho's church, Macao, I lost no time in attempting to gratify my curiosity; but I learned that the monster was then unwell, and had retired to rest. I then formed the resolution of having him brought to my house, for the double purpose of more deliberate observation, and having at the same time a correct model made under my own eye; but aware that the only good artist then in Macao was employed, I deferred giving my orders for a few days; in the mean time the monster unexpectedly left Macao.

"However, the modeller had made such careful observations of the subject, that he informed me he could make an exact representation of what he saw. He has succeeded so well, that I am assured by many friends who had carefully examined the original, that the model is wonderfully exact: a few unimportant exceptions shall be pointed out in the order of my description. I have spared no pains in collecting information from every quarter. I have had the advantage of receiving accounts from a great many intelligent friends, among whom I have the pleasure to mention three medical gentlemen of this place. All their accounts agree surprizingly well. The model has been shown to many of them,

and my account read, with both of which they are entirely satisfied,—so I am persuaded that my own observations could not have added much either to the value or variety of those which I have been so fortunate as to receive from others.

“A-ke was born sixteen years ago, in the district of Yun-lang-uyen, with another male child of nearly the same size united to the pit of his stomach by the neck, as if his brother had plunged its head into his breast. The skin of the principal here joins that of the upper part of the neck of the parasite, quite regularly and smoothly, excepting the superficial blood-vessels, which appear somewhat turgid. The sufferings of the mother were so great that she survived the birth of this monster only two days.

“Since that time, the parasite has not much increased in size*, and at present is not much larger than new-born infants usually are; but the bones are completely formed. The shoulder bones are remarkably prominent. Here the model is faulty, since it represents the roundness of infancy, but all this plumpness has disappeared from the original, where bones seem only to be covered with skin. The hips of the model are too prominent. The manner in which the thighs appear is quite happy, but the feet, particularly the left, are not sufficiently clubbed. In the original, generally the feet and toes are less perfect than in the model. The toes adhere, and one or two are wanting.

“The attachment of the neck of the parasite to the chest of the principal admits of a semi-rotatory motion. The natural position of the bellies is towards each other; but A-ke can turn his brother so far round, that he can bring either side towards his own belly. He also shows that his brother’s arms can be moved freely. The thighs and legs remain stiffly bent, as represented in the model: the thighs being ankylosed with the ossa innominata above, and the tibiæ below. The genital organs appear

* “I have the authority of Lieut.-General Wood, for stating that a careful admeasurement of the parasite was made at his request: the trunk and neck measured about eleven inches, and the longest limb thirteen inches, making the extreme length two feet. This accords sufficiently well with the size I have mentioned; but as the modellers in China do not work by any scale, it would be useless to deduce any exact measurement of the whole figure by knowing a part.”

too perfect in the model, since no vestige of testes, and very little scrotum, can be perceived in the original. The penis is however large in proportion, and the glans about half covered with the prepuce, and is subject to occasional erections, in which state a stillieidium of a mucous fluid from the urethra has sometimes appeared, and has induced a belief among the Chinese that the seminal fluid is copiously secreted. The kidneys seem to perform their functions perfectly. The anus is wanting.

“ A-ke is now about four feet and ten inches high, of a feeble frame and sickly appearance; but, excepting the ineumbrance above described, he is in all respects perfectly formed. * * * *

“ A-ke’s respiration is never perfectly free; on the contrary, it is commonly laborious, and on the slightest exertion, such as walking to a little distance, ascending a flight of steps, or the like, he breathes quickly, and with difficulty. To relieve this, he supports the parasite with his hands, but to obtain any considerable degree of ease, a recumbent posture is necessary. His pulse is commonly quick and small. Mr. Gomez felt distinctly the pulsation of the carotids in the neck of the parasite; it was feeble. He also examined carefully the pulse at the wrists; it was very slow.”

There is a painting preserved in the Museum, of a Case very similar to the one above described, in a young man twenty-eight years of age, named Jacomo Poro, born at Genes in 1714;—and also a drawing of Peruntaloo, a Gentoo boy, thirteen years of age, with a parasitic fetus similarly attached, which is considerably more imperfect than that of A-ke, as in this case the arms are deficient.—*Museum Drawings*.

324. A cast, in plaster, of the external organs of generation of a young female who had an imperforate hymen, for which Mr. Hunter operated. The following is an abstract of the case:—Miss M., a young woman about fifteen years of age, was attacked with monthly periodical pains, and a sense of uneasiness and bearing down of the parts contained in the pelvis, which as they continued, increased in severity. Mr. Hunter was sent for, and upon examining the external parts he found an imperforate hymen, rounded and projecting outwards. The whole perinæum

was fuller than usual, and fluctuation could be distinctly felt, by making pressure upon the hymen. An opening was made with a lancet, upwards and downwards, in the direction of the natural opening, and immediately gave exit to a quantity of blood, which was neither in a coagulated nor a putrid state. A small piece of lint was introduced into the opening, but was forced to be removed in consequence of the pain it produced. On the third day, the divided edges had united, but were again separated by a probe, which allowed a good deal of coagulated blood to pass; and on the fifth day from the operation, the parts had assumed all the appearance of a natural hymen. See MSS. "Cases in Surgery," vol. i. p. 221. See also a drawing of the parts before the operation,—*Museum Drawings*.

325. A curious and elaborate carving, in wood, of a female human monstrous Fetus. The head is exceedingly imperfect and mal-formed; the upper part of the skull, the palate, and upper lip, being deficient. The greater part of the thoracic and abdominal viscera are protruded externally, in consequence of a partial deficiency of the integuments of the abdomen on the right side. The right superior extremity, which is very much distorted in figure, hangs over towards the left side, and appears firmly attached to the sternum; one of the fingers of the hand is deficient; there is distortion also of the left foot. *Mus. Brit.*

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CATALOGUE
OF
THE CONTENTS OF THE MUSEUM
OF
THE ROYAL COLLEGE OF SURGEONS
IN LONDON.

PART VI.
COMPREHENDING
THE VASCULAR AND MISCELLANEOUS PREPARATIONS IN A
DRIED STATE.



LONDON:
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1831.

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C A T A L O G U E.

DRY VASCULAR PREPARATIONS.

SERIES I. Heart and Blood-vessels.

- No. 1. **AN** adult human Heart, and the large Vessels arising from it injected. *Hunterian.*
2. An adult human Heart, and large Vessels injected. *Presented by William Lynn, Esq. 1818.*
3. An adult human Heart, and large Vessels injected. *Hunterian.*
4. An adult human Heart, and large Vessels injected. *Hunterian.*
5. An adult human Heart, and large Vessels injected. *Hunterian.*
6. An adult human Heart, and large Vessels injected. *Hunterian.*
7. An adult human Heart, injected. *Hunterian.*
8. An adult human Heart, injected. *Hunterian.*
9. An adult human Heart, injected. *Hunterian.*
10. An adult human Heart, injected. *Hunterian.*
11. An adult human Heart, injected. *Hunterian.*
12. An adult human Heart, injected. *Hunterian.*

13. An adult human Heart, injected. *Hunterian.*
14. An adult human Heart, injected. *Hunterian.*
15. An adult human Heart, injected. *Hunterian.*
16. A human Heart, injected. *Hunterian.*
17. A human Heart, injected. *Hunterian.*
18. An adult human Heart, with the Aorta and Vena cava, injected. The aorta and its branches, down to its division into the common iliac trunks, are shown; as also the veins forming the ascending cava. The thoracic duct, which is likewise injected, is seen running upwards upon the aorta towards the subclavian vein, in which it terminates. The trachea is left in situ.
Presented by Sir William Blizard. 1811.
19. A similar preparation of the human Heart and Aorta.
Presented by Sir William Blizard. 1811.
20. An adult human Heart, the cavities of which are exposed. *Hunterian.*
21. A human Heart, injected. *Hunterian.*
22. A human Heart, injected. *Hunterian.*
23. An adult human Heart, injected. *Presented by Sir William Blizard. 1811.*
24. An adult human Heart, injected and corroded.
Presented by Sir William Blizard. 1811.
25. An adult human Heart, injected and corroded.
Presented by Sir William Blizard. 1811.
26. A human Heart, injected. The coronary artery is filled with quicksilver.
Presented by Sir William Blizard. 1811.
27. A similar preparation. *Presented by Sir William Blizard. 1811.*
28. A small human Heart, injected and corroded.
Presented by Sir William Blizard. 1811.
29. A similar specimen. *Presented by Sir William Blizard. 1811.*
30. A small human Heart, opened, to show its cavities. *Hunterian.*
31. A fetal human Heart and Arterial System, as illustrative of the fetal circulation; showing the ductus arteriosus between the pulmonary artery and

the aorta, and the division of the umbilical vein, the right branch of which communicates with the trunk of the vena portæ, the left, or ductus venosus, opening into the hepatic veins near their termination in the vena cava.

Presented by Sir William Blizard. 1811.

32. A fetal human Heart, injected, to show the ductus arteriosus and ductus venosus. *Hunterian.*
33. A fetal human Heart, injected, showing the ductus arteriosus. *Hunterian.*
34. A fetal human Heart, injected, showing the ductus arteriosus. *Hunterian.*
35. A similar preparation of a fetal human Heart. The trachea and œsophagus are left attached. *Presented by Sir William Blizard. 1811.*
36. The human Aorta and Jugular Veins, injected; showing the termination of the thoracic duct on each side. The trachea and œsophagus are left attached. *Hunterian.*
37. A human Aorta, injected, from its origin to its division into the iliacs. The course of the thoracic duct, which is also injected, is traced upwards upon the bodies of the vertebræ (which have been left attached for that purpose), to its termination in the subclavian vein. *Hunterian.*
38. A preparation of the human Head and Neck, exhibiting the principal arterics and veins, injected. *Hunterian.*
39. A preparation of the human Head and Neck, of which the arteries only are injected; some of the branches of the external carotid, as the lingual and occipital, are more clearly shown than in the preceding preparation. The right ramus of the lower jaw is removed, to show the internal maxillary artery, and the passage of the dental artery into its canal in the lower jaw: the left half of the calvaria is also removed, to show the arterial circle of Willis, the tentorium, and the falx cerebri.
Presented by Sir William Blizard. 1811.
40. The right superior maxillary Bone (human), showing the distribution of the branches of the infra-orbital artery. *Hunterian.*
41. The right superior Extremity (human), with the vessels injected, showing a high division of the brachial artery. *Hunterian.*

42. A right superior Extremity (human), with the arteries injected ; the muscles are also dissected. *Hunterian.*
43. A left superior Extremity (human), with the arteries injected. *Hunterian.*
44. A female human Hand, injected for the arteries ; showing the ulnar artery, giving off the ulnaris profunda, and forming the arcus superficialis in the palm ; as also the radial artery, forming the arteria magna pollicis and arcus profundus ; the superficialis volæ terminates at the base of the thumb, close to the annular ligament of the carpus, without inosculating with the arcus superficialis. *Presented by Robert Liston, Esq. 1816.*
45. A human Hand, injected for the arteries.
Presented by Sir William Blizard. 1811.
46. The arm of a human Fetus, injected, to show the course and distribution of the brachial artery. *Presented by Sir William Blizard. 1811.*
47. A longitudinal section of a small portion of human Vein, dried, to show the valves. *Hunterian.*
48. The heart of a male Gibbon (*Hylobates*), injected. In its general form, it resembles the human heart. The right subclavian artery and the two carotids arise from the aorta by one common trunk, or arteria innominata, the left subclavian arises singly. The animal was presented to Mr. Hunter by Lord Shelburne. *Hunterian.*
49. The body of a Magot, or Barbary Ape (*Pithecus Inuus*), dissected for the muscles and blood-vessels, which are injected. *Hunterian.*
- 50 The heart of a small female Magot, injected. *Hunterian.*
51. The heart of a large Monkey, injected, (species unknown). The origin of the vessels from the aorta is the same as in the gibbon. *Hunterian.*
52. The heart of a male Mandrill (*Papio Mormon*), injected. The heart is not so broad at the base as in the human subject, nor so flat, and the two ventricles are more twisted, or plaited upon one another. The left ventricle is long, and to appearance, a rounded distinct body ; the heart's obliquity is nearly equal to that of the human subject ; therefore there

is but a very short inferior cava, but it is continued a little way along the diaphragm before it passes through.

From the arch of the aorta arise two arteries ; the first, a large one, is the common trunk of the right subclavian and the two carotids ; the second is the left subclavian. *Hunterian.*

53. The heart of the Ring-tailed Lemur (*Lemur Catta*), injected : one common trunk gives off both the carotid and subclavian arteries. *Hunterian.*

54. The heart of a Ring-tailed Lemur, injected. *Hunterian.*

55. The heart of a Bear (*Ursus Arctos*), injected ; the arteria innominata, as in the lion, gives off both the carotids and the right subclavian artery. *Hunterian.*

56. The left anterior extremity of a Bear, dissected for the muscles and blood-vessels, which are injected. *Hunterian.*

57. The heart of an Otter (*Mustela Lutra*), injected : the aorta gives off its vessels by two trunks ; the first dividing into the right subclavian and both the carotids, the second forming the left subclavian. *Hunterian.*

58. The heart of an Otter, injected. *Hunterian.*

59. The heart of an Otter, injected. *Hunterian.*

60. The heart of a Lion, injected ; the trachea is left attached, to show its relative situation. *Hunterian.*

61. The heart of a Lion, injected, with the lower portion of the trachea attached. *Hunterian.*

62. The heart of a Lion, injected. *Hunterian.*

63. The heart of a Lion, injected. *Hunterian.*

64. The head, neck, and thorax of a Lion, with the arteries and veins injected. The scapula and ribs on the right side have been removed, for the purpose of exhibiting the mode of origin of the vessels which arise from the arch of the aorta. The arteria innominata gives off both the right subclavian and the right and left carotid arteries, while the left subclavian artery arises by a separate trunk. On the left side of the neck, the

course of the carotid artery and external jugular vein is shown; the branches of the external carotid here seen, are, the lingual, the maxillary, and the external auditory. The branches of the jugular vein are, the temporal, the auricular, the sublingual, and the occipital. On the right side of the neck and head, a more perfect view of the course and distribution of the external carotid is obtained, by the removal of the veins, the greater part of the muscles of that side of the neck, the masseter and temporal muscles, and, also, a portion of the lower jaw; by this means, in addition to those branches of the carotid already described as exhibited on the left side, the internal maxillary, of which the infra-orbital branch ramifies largely upon the upper lip, supplying the bulbs of the whiskers; and also the temporal and occipital branches, together with the arterial plexus formed at the point where the internal carotid enters the skull, are exposed. Within the thorax are seen the internal mammary, the vertebral, and some of the intercostal vessels. *Hunterian.*

65. A longitudinal section of the skull of a Lion, with the first and second cervical vertebræ attached. The external carotid artery and its branches are injected, and their distribution shown; the arterial plexus, where the vessel enters the skull, is also displayed. *Hunterian.*
66. The right anterior extremity of a Lion, dissected for the muscles, and arteries, which are injected; the transmission of the brachial artery through the foramen at the inferior extremity of the humerus, is very distinctly shown in this specimen. *Hunterian.*
67. The posterior part of the body and extremities of a Lion (See No. 64), injected, to show the distribution of the arteries arising from the descending aorta, with their accompanying veins, as far as the external iliacs, from which point, the arterial system alone has been traced. The vessels seen within the abdomen are, the superior mesenteric, the renal, the spermatic, the inferior mesenteric, the lumbar, sacral, iliac, and caudal arteries. The course of both the internal and external iliac arteries is shown; the former giving off the gluteal, the ischiatic, the internal pudendal, and obturator arteries; the latter continued into the femoral artery, which gives off the profunda and other muscular branches, and

- terminates in the anterior and posterior tibial arteries, the ultimate distribution of which, in the foot, is shown. *Hunterian.*
68. The heart of a large Tiger (*Felis Tigris*), injected. The origin of the vessels is the same as in the lion. *Hunterian.*
69. The heart of a Tiger, injected. *Hunterian.*
70. The arch, with a considerable portion of the descending trunk of the aorta, of a Quadruped. The origin of the subclavian and carotid arteries is the same as in the lion. *Hunterian.*
71. The aorta, vena cava, and thoracic duct of a Quadruped, injected. The origin of the carotids and subclavian arteries is the same as in the lion, tiger, &c. *Hunterian.*
72. The heart and aorta, (from the arch of which the vessels arise as in the human body,) the vena cava, &c. of a Seal (*Phoca vitulina*), injected. In this specimen the great dilatation of that portion of the ascending cava, situated between the liver and diaphragm, is well shown, a circumstance which appears to be peculiar to diving animals generally; the reticulate arrangement of the renal veins upon the right kidney, which has been injected, is also shown. *Hunterian.*
73. The heart of a Seal, injected. *Hunterian.*
74. The heart of a young Seal, injected, showing the communication between the pulmonary artery and aorta, by the ductus arteriosus. *Hunterian.*
75. The heart (apparently of a young Seal), injected. The communication between the pulmonary artery and aorta by the ductus arteriosus is shown. *Hunterian.*
76. The heart of a Walrus (*Trichechus Rosmarus*), injected. The aorta gives off two large trunks, the first of which divides into the right subclavian and both carotids; the second forms the left subclavian artery alone. The ventricles in this specimen are slightly separated at their apices, somewhat resembling the bifid form of the heart in the genus Halli-core, but in a less degree: it may perhaps in this instance have been increased, if not produced, by the force of injection only. *Hunterian.*

77. The aorta and pulmonary artery of a young Walrus, injected, to show the ductus arteriosus. *Hunterian.*
78. The heart of an Opossum (*Didelphis*), injected. The origin of the vessels from the arch of the aorta is the same as in the lion, &c. *Hunterian.*
79. The heart of an Opossum, injected. *Hunterian.*
80. The heart of a Kangaroo (*Kangurus labiatus*), injected. The mode of origin of the vessels from the arch of the aorta, is the same as in the lion, bear, &c., viz. by two trunks. *Hunterian.*
81. The heart of a Beaver (*Castor Fiber*), injected. The arteria innominata here gives off the right carotid and subclavian; the left carotid and subclavian arteries arising by separate trunks from the aorta. *Hunterian.*
82. The heart of a Beaver, injected. *Hunterian.*
83. The heart of the Cat Squirrel (*Sciurus vulpinus*), injected. The vessels arise from the arch of the aorta by two trunks; the first dividing into the right subclavian and the carotids, the other forming the left subclavian. *Hunterian.*
84. The heart of the Cat Squirrel, injected. *Hunterian.*
85. The heart of the common Squirrel (*Sciurus vulgaris*), injected. *Hunterian.*
86. The heart of a Porcupine (*Hystrix cristata*), injected. The vessels from the arch of the aorta arise as in the kangaroo. *Hunterian.*
87. The heart of the Hudson's Bay Porcupine (*Hystrix dorsata*), injected. *Hunterian.*
88. The heart of a Hare (*Lepus timidus*), injected. The origin of the vessels from the arch of the aorta is the same as in the opossum. *Hunterian.*
89. The heart of the Capybara (*Hydrochoerus Capybara*), injected. One large trunk, or ascending aorta, gives off both the carotid, and subclavian arteries. *Hunterian.*
90. The heart of the long-nosed Cavy, or Aguti (*Dasyprocta Aguti*), injected. In this, as in the capybara, one common trunk, or ascending aorta, gives off both the carotid and subclavian arteries. *Hunterian.*

91. The heart of the yellow Paca (*Cœlogenus fulvus*), injected. The origin of the vessels from the arch of the aorta is the same as in the lion, kangaroo, &c. viz. by two common trunks. *Hunterian.*
92. The heart of an Elephant (*Elephas Indicus*), injected. The arteria innominata gives off the right subclavian and both carotid arteries; the left subclavian arises by a separate trunk. The termination of the thoracic duct is also shown. *Hunterian.*
93. The heart of a smaller Elephant, injected. This and the preceding specimen were from two animals that died at Pimlico, and were presented to Mr. Hunter by Her late Majesty Queen Charlotte. *Hunterian.*
94. The valves of the aorta of a young Elephant, dried. *Hunterian.*
95. A cast, in wax, of the valves of veins of an Elephant. *Hunterian.*
96. A similar cast of the valves of veins, of an Elephant of smaller size. *Hunterian.*
97. The heart of a Boar (*Sus Scrofa*), injected. The origin of the vessels from the arch of the aorta is the same as in the class Feræ, viz.—the carotids, and right subclavian artery, arise by one large trunk, the left subclavian arises by a separate origin. The vena azygos passes upwards on the left side of the aorta; it then crosses that vessel below its curvature, and is continued round towards the right auricle, in which it terminates; embracing as it were, the pulmonary vessels, over the anterior or upper surface of which it passes; in its course onwards, it becomes closely attached to the posterior part of the left auricle, in a manner similar to the left subclavian vein in birds. *Hunterian.*
98. The heart of a Boar, injected. *Hunterian.*
99. A portion of the aorta and vena cava of a Boar, injected, with the mesenteric vessels attached. *Hunterian.*
100. Mesenteric arteries and veins of a Boar, injected. *Hunterian.*
101. Mesenteric vessels of a Boar, injected. *Hunterian.*
102. Mesenteric vessels of a Boar, injected. *Hunterian.*
103. Mesenteric vessels of a Boar, injected. *Hunterian.*

104. Mesenteric vessels of a Sow, injected. *Hunterian.*
105. The heart of the American Tapir (*Tapirus Americanus*), injected. From the arch of the aorta, one large trunk, or arteria innominata, gives off both the carotid and subclavian arteries. *Hunterian.*
106. A section of the posterior part of the skull of an Ass (*Equus Asinus*), showing, externally, the course of the carotid artery and some of its branches; and exposing, internally, the cavities of the cranium and frontal sinus, together with the larynx, pharynx, trachea, and œsophagus. *Hunterian.*
107. A portion of the jugular vein of a Horse, dried and slit open, to show a pair of semilunar valves. *Hunterian.*
108. A portion of the jugular vein of a Horse, dried, to show the valves. *Hunterian.*
109. A foot of a Horse, injected, for the arteries and veins.
Presented by Sir E. Home, Bart.
110. A similar preparation. *Presented by William Goodwin, Esq. 1819.*
111. The heart of a Bactrian Camel (*Camelus Bactrianus*), injected. The aorta gives off its arteries at the arch by two large trunks; a considerable portion of the descending aorta is left attached, and shows the course of the vena azygos upon its right side, towards the superior vena cava, in which the right and left subclavian and jugular veins terminate. The subdivisions of the pulmonary artery, and the termination of the inferior cava, are also shown. The thoracic duct is injected, and of large size; the superficial distribution of the coronary vessels of the heart is very distinct. *Hunterian.*
112. The heart of a Dromedary (*Camelus Dromedarius*), injected; the vessels of which are left attached to a more considerable length than in the preceding specimen. The course of the thoracic duct, and its termination at the junction of the subclavian and jugular veins, is remarkably distinct. This specimen is from the animal whose skeleton is preserved in the Museum.—See No. 877, Osteol. Catalogue. *Mus. Brookes.*
113. The descending aorta of a Camel, from the diaphragm, to its division into

the common iliac trunks, with the cœliac and superior mesenteric arteries, injected; the lymphatic vessels on the aorta, ascending towards the thoracic duct, and also the lacteals of the mesentery, are injected.

Hunterian.

114. The valves of the aorta of a Camel, dried. *Hunterian.*

115. The valves of the aorta of a Camel, dried. *Hunterian.*

116. Portions of the right and left carotid arteries of a Camel. They are three feet three inches in length. *Hunterian.*

117. Portions of the right and left carotid arteries of a Camel, injected. *Hunterian.*

118. One of the jugular veins of a Camel, injected; with the valvular dilations very distinct. *Hunterian.*

119. Eight portions of the jugular vein of a Camel, separated at the valves. *Hunterian.*

120. The heart of a Doe (*Cervus Dama*), injected. A single trunk, or aorta ascendens, gives origin to both the carotid and subclavian arteries; the vena cava ascendens sends down a branch to the vena azygos, which enters the right auricle, after having taken its course upon the right side of the aorta in its ascent. *Hunterian.*

121. The heart of a Doe, injected. *Hunterian.*

122. The heart of an Antelope, injected. (Species not known.) *Hunterian.*

123. The heart of a young Goat (*Capra Hircus*), injected. The aorta, at its greatest convexity, gives off one large trunk, or arteria innominata, which, after a short course, divides into the subclavian and carotid arteries. *Hunterian.*

124. The heart of a Sheep (*Ovis Aries*), injected. The division of the aorta into an ascending trunk, and its subsequent distribution, is the same as in the ox. The double thoracic duct, which is also injected, is seen terminating in the angle of the jugular and subclavian veins. *Hunterian.*

125. The heart of an Ox (*Bos Taurus*), injected. The aorta, at a short distance from its origin, divides into two equal trunks, one ascending to give off

- the carotid and subclavian arteries, the other forming the arch ; the vena azygos is double. *Hunterian.*
126. The commencement of the aorta and pulmonary artery of an ox, injected with plaster of Paris ; the ossicula at the valves of the aorta are left attached. *Mus. Brookes.*
127. The heart of the common Dolphin (*Delphinus Delphis*), injected. The animal from which this specimen was removed was cast on shore at Worthing in the year 1806. *Presented by Sir E. Home, Bart.*
128. The aorta and vena cava, with their principal branches, of a Dolphin (*Delphinus Tursio*), injected. The course and termination of the thoracic duct are also shown. *Hunterian.*
129. The heart and lungs of a large Porpesse (*Delphinus Phocæna*), injected. *Hunterian.*
130. The heart of a large Porpesse, injected. *Hunterian.*
131. The heart of a Porpesse, injected. *Hunterian.*
132. The heart and aorta of a Porpesse, injected ; showing the intercostal arterial plexuses. *Hunterian.*
133. A portion of the aorta of a Porpesse, injected for the same purpose. *Hunterian.*
134. The aorta, vena cava, and thoracic duct of a Porpesse, injected. *Hunterian.*
135. The heart of the Bottle-nose Whale (*Delphinus Dalei*), injected. The mode of origin of the vessels from the arch of the aorta is the same as in the human body ; the arteria innominata giving off the right carotid and subclavian arteries, the left carotid and subclavian arteries arising from the aorta by separate trunks. The animal from which this preparation was obtained was caught in the river Thames, in the year 1783 ; and is described by John Hunter in the *Philos. Trans.* for the year 1787, vol. lxxvii. p. 373. See also No. 1145, *Osteol. Catalogue.* *Hunterian.*
136. The right humerus of an Eagle, with some of the muscles dissected. *Hunterian.*
137. A common Fowl (*Phasianus Gallus*), injected, for the arteries and veins. *Hunterian.*

138. The heart of a Turkey (*Meleagris Gallopavo*), injected; the origin of its vessels is the same as in the swan. *Hunterian.*
139. The heart of an Ostrich (*Struthio Camelus*), injected. The aorta, in this instance, may, with more propriety, be said to give off two branches, rather than to divide into three trunks, as in the swan, &c.; as the first, or ascending aorta, is more than twice the calibre of the two other trunks, which form the subclavian, carotid, and vertebral arteries: the division of the pulmonary artery, at a short distance from its origin, is the same. *Hunterian.*
140. The heart of an Ostrich, injected. *Hunterian.*
141. The heart of an Ostrich, injected. *Hunterian.*
142. The heart of an Ostrich, with portions of the parietes removed, to show the cavities of the auricles and ventricles, their communications with each other, and the origins and terminations of all the great vessels connected with them. *Hunterian.*
143. The trunk of an Ostrich, with the sternum and anterior portions of the ribs removed, showing the heart in situ, and the distribution of the principal blood-vessels, injected. *Hunterian.*
144. The head and neck of an Ostrich, injected, for the arteries and veins. *Hunterian.*
145. The right wing of an Ostrich, with the arteries and veins injected, to show their distribution. *Hunterian.*
146. Part of the pelvis, and the right leg of an Ostrich, dissected for the muscles and arteries, which are injected. *Hunterian.*
147. A portion of vein of an Ostrich, with an absorbent vessel running upon its surface, injected with quicksilver. *Hunterian.*
148. The heart of a Bustard (*Otis Tarda*), injected: the origin and division of its vessels are the same as in the swan and turkey. *Hunterian.*
149. The heart of a Swan (*Anas Cygnus*), injected. The aorta, almost immediately at its origin from the left ventricle, divides into three nearly equal trunks; the first (or that towards the right side) forms the ascending aorta; the middle one forms the right subclavian, carotid, and large ver-

- tebral arteries ; while the third or left trunk divides into the corresponding vessels on the opposite side of the neck. The pulmonary artery, at a short distance from its origin on the left side of the right ventricle, divides into two large lateral branches, one going to each lung. *Hunterian.*
150. The carotid arteries of a Swan, injected. *Hunterian.*
151. A Swan, injected, to show the course and distribution of the principal vessels, the sternum and part of the ribs having been removed for that purpose. *Hunterian.*
152. The body of a Swan, injected, to show the heart in situ, and the vessels arising from it. *Hunterian.*
153. The heart of a young Gosling, injected. *Hunterian.*
154. The heart, the double aortæ, and the vena cava of an East Indian Tortoise (*Testudo Indica*), injected. *Hunterian.*
155. The heart of a Tortoise, injected ; it shows the double origin of the aorta, and the right, or principal descending trunk. *Hunterian.*
156. The descending aortæ of a Tortoise, injected, showing the junction of their trunks. *Hunterian.*
157. The head and cervical vertebræ of a small Tortoise, with the heart and its vessels (which are injected) left attached : this preparation also shows the high or anterior division of the trachea, which has been preserved for that purpose. *Hunterian.*
158. The heart of a Turtle (*Testudo Caretta*), injected ; the double aorta takes its origin from the right side of the single ventricle, and forms at the angle of its bifurcation a third trunk, which divides into the axillary and carotid arteries. The pulmonary artery, which arises immediately behind the aortæ, divides into two equal trunks, that take their course laterally. *Hunterian.*
159. The heart of a Turtle, with the aortæ and mesenteric artery, injected : the lacteals on the mesentery, and the lymphatics upon the aortic trunks, in their course towards the veins, are also injected, to show their large size. *Hunterian.*

160. The heart and blood-vessels of a Turtle, including those of the mesentery and kidneys. *Hunterian.*
161. The heart of a Turtle, with its cavities laid open, to show the valves between the ventricle and the right and left auricles; and also, the origins of the aortæ and pulmonary artery, and the deficiency of a true ventricular septum. *Hunterian.*
162. The upper shell, or carapace of a Green Turtle; the abdominal shell, and also the extremities of the right side, together with the whole of the viscera, except the urinary bladder, have been removed; the course of the double aorta, with its junction upon the spine, and some of the visceral branches, are shown. *Hunterian.*
163. A smaller specimen of the same species of Turtle, with the arterial system displayed in a similar manner in situ. *Hunterian.*
164. The heart and aorta of a Turtle, injected, and corroded. *Hunterian.*
165. The descending aortæ of a Turtle, injected, showing the junction of their trunks. *Hunterian.*
166. The body of a young Gangetic Crocodile (*Crocodilus biporcatus*), with the thorax and abdomen opened, to show the heart, and the course of the principal arteries, which are injected, in situ. *Hunterian.*
167. The trunk of a small Crocodile (*Lacerta Crocodilus*); the sternum has been removed to expose the heart, and the course and junction of the descending aortæ. (Imperfect.) *Hunterian.*
168. A posterior view of the heart of a small Crocodile, injected, with the junction of the descending aortæ, and the course of the vena cava. *Hunterian.*
169. The heart, and principal part of the arterial and venous system, of a small Crocodile, injected; the stomach is preserved in connection with its vessels. *Hunterian.*
170. The descending aortæ of a Crocodile, to show the junction of the vessels. *Hunterian.*
171. The abdominal portion of the spine of a small Crocodile, with two small arteries which run along upon the side of the bodies of the vertebræ, injected. *Hunterian.*

172. The lumbar vertebræ and pelvis of a small Crocodile, with the lower portion of the aorta, the renal vessels, and the right kidney, injected.
Hunterian.
173. The heart of a Rattle-snake (*Crotalus*), injected. As in the tortoise, the aorta arises double, and the junction of the trunks takes place upon the lumbar vertebræ.
Hunterian.
174. A Rattle-snake, with the heart and blood-vessels injected. *Hunterian.*
175. The heart of a large Toad (*Rana Bufo*), injected. It is composed of a single auricle and ventricle; from the latter, the arterial trunk, or aorta, arises, and immediately after its origin divides into two branches, which ultimately unite into one descending aorta, at the inferior part of the spine.
Hunterian.
176. The heart of a Frog (*Rana temporaria*), injected. As in fishes, the heart is composed of two cavities, a single auricle, and a single ventricle.
Hunterian.
177. The head and heart, with some of the adjacent viscera left attached, of the North American Syren, or Kattewagoe (*Lacerta Alleghaniensis*), injected, showing the divisions of the branchial artery. *Hunterian.*
178. The heart and branchial vessels of a Cod-fish (*Gadus Morhua*), injected, in situ. *Hunterian.*
179. The heart and branchial vessels of a Cod-fish, injected, in situ. *Hunterian.*
180. The vena portarum of an Eel (*Muræna vulgaris*), having a plexus of small vessels running upon it. *Hunterian.*
181. The heart and branchial vessels of a Dog-fish (*Squalus Catulus*), injected.
Hunterian.
182. The heart of the White Shark (*Squalus Carcharius*), injected. The branchial artery and its bulb are shown, the former giving off the lateral branches distributed upon the gills. The venous sinus, which receives the venæ cavæ, is seen opening into the posterior part of the single auricle.
Hunterian.
183. The heart of the Basking Shark (*Squalus maximus*), injected, with the

commencement of the branchial artery and its bulb. The shark was caught at Brighton in the year 1812. See No. 1841, Osteol. Catalogue.

Presented by Sir E. Home, Bart.

184. The circulating organs of a Cuttle-fish (*Sepia officinalis*), injected; showing the single aortal, and the two pulmonary hearts. *Hunterian.*
185. The circulating organs of a Cuttle-fish, injected. In this specimen the gills are left, in connection with the branchial hearts. *Hunterian.*
186. Four hearts of Snails (*Helix Pomatia*), injected. *Hunterian.*
187. The heart of a fresh-water Muscle (*Anodon anatinus*). *Hunterian.*
188. The heart of a Lobster (*Astacus marinus*), injected. *Hunterian.*
189. The body of a Lobster, in longitudinal section, with the arterial and venous system injected. (Imperfect.) *Hunterian.*
190. The body of a larva of the Silk-moth (*Bombyx Mori*), injected. *Hunterian.*
191. A portion of the disc of a Medusa, injected, showing the reticulate arrangement of its vessels. *Hunterian.*

Absorbent System.

192. An absorbent Gland. Human. *Hunterian.*
193. The Thoracic Duct, injected. Human. *Hunterian.*
194. Absorbent Vessels, injected with quicksilver, probably of a Whale. *Hunterian.*
195. Two absorbent glands of a Turtle, injected with quicksilver. *Hunterian.*
196. A portion of the trunk of an absorbent of a Cod-fish, injected with quicksilver. *Hunterian.*
197. A small portion of an absorbent vessel of a Cod-fish, injected. *Hunterian.*
198. A similar preparation. *Hunterian.*

Organs of Respiration.

199. A human Heart, and Pulmonary Vessels, injected and corroded. The right lung has the air-cells also injected, preserving by that means the form of the organ; the left lung has had its substance removed by corrosion, the blood-vessels alone having been filled with wax. *Hunterian.*
200. A human Heart, and Pulmonary Vessels, injected and corroded. The air-cells of both lungs have been partially injected. *Hunterian.*
201. A portion of the trachea, to which the œsophagus is left attached, with the larynx and laryngeal sacculi, of a Mandrill (*Simia Mormon*). *Hunterian.*
202. The head of a Macaque (*Macacus*), showing the laryngeal sacculus, and also the cheek pouches. *Hunterian.*
203. The upper portion of the trachea, with the larynx, and laryngeal sacculus, of a Monkey. *Hunterian.*
204. The upper portion of the trachea, with the larynx and laryngeal sacculus, of a Monkey. *Hunterian.*
205. The os hyoides, larynx, and a portion of the trachea, of a Lion. *Hunterian.*
206. The trachea and lungs of a Sloth; the lungs are injected with wax, and show the excavation in each lobe, forming a cavity in which the heart is imbedded. *Hunterian.*
207. The os hyoides, larynx, and trachea, of an Elephant. *Hunterian.*
208. The os hyoides, larynx, and trachea, of a Camel. *Hunterian.*
209. A small portion of the lung of a Porpesse (*Delphinus Phocæna*), with the air-cells and bronchial tubes, injected and corroded. (Imperfect.) *Hunterian.*
210. A portion of the lung of a Porpesse, in section, the air-cells of which have been filled with quicksilver. *Hunterian.*
211. A similar section of the lung of a Porpesse. *Hunterian.*
212. A similar section of the lung of a Porpesse. *Hunterian.*
213. The larynx, and a portion of the trachea of a female Dolphin, eleven feet

long, which, together with its young-one, was caught upon the sea-coast, near Berkeley in Gloucestershire. They were presented to Mr. Hunter by Dr. Jenner.—See Philos. Trans. vol. lxxvii. p. 373. pl. xviii.

Hunterian.

214. The posterior cornua of the os hyoides, the larynx, and the trachea of the Piked Whale (*Balæna Boops*). *Hunterian.*

In Mr. Hunter's paper "On the Structure and Œconomy of Whales," in the Philos. Trans. vol. lxxvii. p. 416, the following description of the larynx is given:—

"The larynx, in most animals living on land, is a compound organ, adapted both for respiration, deglutition, and sound, which last is produced in the actions of respiration; but in this tribe, the larynx, I suppose, is only adapted to respiration, as we do not know that they have any mode of producing sound.

"It is composed of os hyoides, thyroid, cricoid, and two arytenoid cartilages, with the epiglottis.

"It varies very much in structure and size, when compared in animals of different genera. These cartilages were much smaller in the Bottle-nose Whale of twenty-four feet long, than in the Piked Whale of seventeen feet, while the os hyoides was much larger.

"In the Bottle-nose, the os hyoides is composed of three bones, besides two whose ends are attached to it, being placed above the os hyoides, making five in all. In the Porpoise, Piked Whale, &c. it is but one bone, slightly bent, having a broad thin process passing up, which is a little forked: it has no attachment to the head, by means of other bones, as in many quadrupeds.

"The thyroid cartilage in the Piked Whale is broad from side to side, but not from the upper to the lower part: it has two lateral processes, which are long, and pass down the outside of the cricoid, near to its lower end, and are joined to it much as in the human subject. These differ in shape in different animals of this tribe.

"The cricoid cartilage is broad and flat, making the posterior and lateral part of the larynx, and is much deeper behind, and laterally, than

before. It is extremely thick and strong, flattened on the posterior surface, and hollowed from the upper edge to the lower. It terminates by a thick edge on the posterior part above, but irregularly at the lower edge, in the cartilages of the larynx.

“ The two arytenoid cartilages are extremely projecting, and united to each other till near their ends ; are articulated on the upper edge of the cricoid, but send down a process, which passes on the inside of the cricoid, being attached to a bag in the Piked Whale, which is formed below the thyroid and before the cricoid cartilages ; they cross the cavity of the larynx obliquely, making the passage, at the upper part, a groove between them : the cavity at this place swells out laterally, but is very narrow between the anterior and posterior surfaces. The passage above, between the arytenoid and thyroid cartilages, is wide from side to side, and is continued down on the outside of the processes of the arytenoid cartilage, as well as between them, ending below the thyroid, which is foliculated on its inner surface on the fore part of the cricoid cartilage.

“ The epiglottis makes a third part of the passage, and completes the glottis by forming it into a canal, in several of this tribe ; but in the Piked Whale it was not attached to the two arytenoid cartilages, but only in contact, or inclosing them at their base, so as to form a complete canal. I could not observe anything like a thyroid gland.

“ From the glottis and epiglottis being so connected as to make but one canal, and from the thyroid and cricoid cartilages being so flattened in some between the anterior and posterior surface, the passage through these parts is very small or contracted ; but the trachea swells out again into a very considerable size. Its larger branches are in proportion to the trunk, and enter the lungs at the upper end along with the blood-vessels.”

Hunterian.

215. A Hawk, with the air-cells in the abdomen, which form the medium of communication between the lungs and the cavities of the humeri, and femora, injected with wax from the trachea.

Hunterian.

216. A cast in wax of the cavity of the humerus of a Hawk, which communicates with the air-cells of the lungs.

Hunterian.

217. A similar cast of the cavity of the humerus of a smaller bird. *Hunterian.*
218. The trachea of an Ostrich. *Hunterian.*
219. The lower portion of the trachea of an Ostrich. *Purchased.*
220. The bifurcation of the trachea of an Ostrich. *Hunterian.*
221. The pulmonary vessels of an Ostrich, injected and corroded. *Hunterian.*
222. The trachea of the Gannet (*Pelecanus Bassanus*), male.
Presented by Wm. Yarrell, Esq.
223. The trachea of a Spoon-bill (*Platalea*). *Presented by Dr. Leach. 1819.*
224. The convoluted portion of the trachea of a Spoon-bill. *Hunterian.*
225. The trachea of a Swan (*Anas Cygnus*), showing the expansion or dilatation of the tube at its upper and lower part.
Presented by Dr. Leach. 1824.
226. The trachea and larynx of the Gambia or Spur-winged Goose (*Anas Gambensis*).
Presented by Dr. Leach. 1824.
227. The trachea of the Brent Goose (*Anas Bernicla*), male; showing its double dilatation.
Presented by Wm. Yarrell, Esq.
228. The bony larynx of the common Duck (*Anas Boschas*), male. *Hunterian.*
229. The trachea and larynx of the Wild Duck, male.
This and the eleven following specimens were presented by William Yarrell, Esq.
230. The trachea of the Wild Duck, female.
231. The trachea and larynx of the Common Duck, male.
232. The trachea of the Common Duck, female.
233. The trachea and larynx of the Tufted Duck (*Anas cristata*), male.
234. The trachea of the Tufted Duck, female.
235. The trachea and larynx of the Shoveller Duck (*Anas clypeata*), male.
236. The trachea of the Shoveller Duck, female.
237. The trachea and larynx of the Pintail (*Anas acuta*), male.
238. The trachea of the Pintail, female.

239. The trachea and larynx of the Teal (*Anas Crecca*).
240. The trachea of the Teal, female.
241. The trachea and larynx of the Muscovy Duck (*Anas moschata*), male.
Presented by Dr. Leach. 1824.
242. The bony larynx of the Muscovy Duck, male. *Hunterian.*
243. A similar preparation. *Hunterian.*
244. The trachea and larynx of the Scaup Duck (*Anas Marila*), male.
This and the five following specimens were presented by William Yarrell, Esq.
245. The trachea and larynx of the Golden-eye Duck (*Anas Clangula*), male ;
showing the single dilatation of the tube.
246. The trachea and larynx of the Shieldrake (*Anas Tadorna*), male.
247. The trachea and larynx of the Pochard (*Anas ferina*), male.
248. The trachea and larynx of the Widgeon (*Anas Penelope*), male.
249. The trachea and larynx of the Goosander (*Mergus Merganser*), male.
250. The bony larynx of a Goosander. *Hunterian.*
251. The trachea and larynx of the Smew (*Mergus Albellus*), male.
Presented by William Yarrell, Esq.
252. A Tortoise (*Testudo tabulata*), injected, for the heart and lungs, which are
preserved in situ : the high bifurcation of the trachea upon the œso-
phagus is also shown. *Hunterian.*
253. A similar preparation of the tabulated Tortoise, injected : the lungs, which
are of large size, are injected, and displayed in situ ; the course and dis-
tribution of the aorta and vena cava are also shown. *Hunterian.*
254. The inferior portion of the trachea of a Turtle, showing the great length
of the bronchial tubes before they ramify. *Hunterian.*
255. The bronchial tubes of the trachea of a Tortoise, showing the same
circumstance. *Hunterian.*
256. A section of a Turtle's lungs, to show the air-cells, injected and dried.
Hunterian.

257. The trachea and lungs of a small Crocodile, with the heart and aortæ also injected, and left attached. *Hunterian.*
258. A longitudinal section of the head, and the anterior part of the body of a Wolf-fish (*Anarhichas Lupus*), with the gills and branchial vessels injected. *Hunterian.*
259. The branchial vessels and gills of a Cod-fish, injected. *Hunterian.*
260. A cast in wax of the mouth and branchial apertures of a Dog-fish. *Hunterian.*
261. The branchial organs of a Cuttle-fish, injected. *Hunterian.*
262. The body of a Lobster (*Astacus marinus*), with the gills exposed. The vascular system is also injected. (Imperfect.) *Hunterian.*

Organs of Digestion.

263. A human Stomach, injected, with a portion of the duodenum left attached, to show the gall-bladder, and its duct terminating in the intestine. *Hunterian.*
264. An adult human Stomach, injected. *Hunterian.*
265. An adult human Stomach, in transverse longitudinal section, injected, including the commencement of the duodenum, in which the biliary duct is seen terminating. *Hunterian.*
266. A small human Stomach, injected. *Hunterian.*
267. A human Gall-bladder, injected. *Presented by Sir Wm. Blizard. 1811.*
268. A human Gall-bladder, with the lymphatic vessels, injected. *Hunterian.*
269. A human Gall-bladder, with its duct, and a portion of the duodenum, in which it terminates, injected. *Presented by Sir Wm. Blizard. 1811.*
270. A human Gall-bladder, opened. *Hunterian.*
271. A human Spleen, injected. *Hunterian.*
272. A human Liver, injected and corroded. (Imperfect.) *Hunterian.*
273. A human Liver, injected and corroded. (Imperfect.) *Hunterian.*

274. A portion of human Liver, minutely injected and corroded. (Imperfect.)
Hunterian.
275. Human hepatic Artery and Vein, injected and corroded. (Imperfect.)
Hunterian.
276. A frame containing portions of the human Stomach, and Intestines, injected, and spread out to exhibit their vascularity.
Hunterian.
277. A frame containing portions of human Intestine, injected, and displayed in a similar manner.
Hunterian.
278. A portion of human Jejunum, minutely injected.
Hunterian.
279. A similar preparation.
Hunterian.
280. A similar preparation.
Hunterian.
281. A similar preparation.
Hunterian.
282. A portion of human Ileum, minutely injected.
Hunterian.
283. A similar preparation.
Hunterian.
284. A portion of human Ileum, minutely injected, and opened longitudinally, to show the valvulæ conniventes.
Hunterian.
285. Human Ileum and Cæcum, injected.
Hunterian.
286. A portion of human Intestine, minutely injected.
Hunterian.
287. A portion of the Ileum of a human Fetus, injected.
Hunterian.
288. The Cæcum and appendix vermiformis of a human Fetus. The intestine is opened to show the valve.
Hunterian.
289. A portion of human Mesentery, with some of the lacteals injected with quicksilver.
Hunterian.
290. A portion of human Mesentery, injected.
Presented by Sir Wm. Blizard. 1811.
291. A human Pancreas, injected.
Presented by Sir Wm. Blizard. 1811.
292. The stomach, and the commencement of the duodenum, of a Monkey, injected. (Species not known.)
Hunterian.
293. The stomach of a Monkey, injected. (Species not known.)
Hunterian.

294. The cæcum and appendix vermiformis of a Gibbon (*Hylobates*). Presented to Mr. Hunter by Lord Shelburne. *Hunterian.*
295. The stomach of a Mandrill (*Papio Mormon*), injected. *Hunterian.*
296. The cæcum and appendix vermiformis of a Mandrill, injected. *Hunterian.*
297. The stomach of a Mole (*Talpa Europæa*), injected. *Hunterian.*
298. The gall-bladder and hepatic duct of the Indian Badger (*Ursus Indicus*), uniting to form the ductus choledochus, with a portion of the duodenum left attached, to show the duct terminating in it. *Hunterian.*
299. The gall-bladder of the East Indian Skunk, or Mcphitic Weasel, filled with wax. *Hunterian.*
300. The stomach, and a portion of the duodenum, of an Otter (*Mustela Lutra*), injected. *Hunterian.*
301. A portion of the small intestine of an Otter, injected. *Hunterian.*
302. The liver of an Otter, injected and corroded. (Imperfect.) *Hunterian.*
303. The gall-bladder of an Otter, injected. *Hunterian.*
304. The cæcum of a Wolf (*Canis Lupus*), opened to show the valve. *Hunterian.*
305. The stomach, with the commencement of the duodenum, of the Genet, or Gray Weasel (*Genetta vulgaris*). *Hunterian.*
306. The stomach of a Hyæna (*Hyæna vulgaris*). *Hunterian.*
307. The stomach, and the commencement of the duodenum, of a Lion (*Felis Leo*), injected. *Hunterian.*
308. The gall-bladder and duct of a wild Cat, showing its termination in the duodenum. *Hunterian.*
309. The stomach of a Seal (*Phoca*). *Hunterian.*
310. The stomach of a small Seal, injected. *Hunterian.*
311. A portion of the small intestine of a Seal, injected. *Hunterian.*
312. The stomach of a young Kangaroo (*Kangurus labiatus*), injected. *Hunterian.*

313. A portion of the small intestine and mesentery of a Kangaroo, injected.
Hunterian.

314. The cæcum of a Kangaroo, inflated and dried. *Hunterian.*

315. The stomach of the Wombat (*Phascolomys Wombat*), injected.

*This and the six following specimens were presented by
Sir Everard Home, Bart.*

316. A portion of small intestine of the Wombat, injected.

317. The cæcum and commencement of the colon of the Wombat, injected.

318. A portion of large intestine, or colon, of the Wombat, injected.

319. A similar preparation.

320. A similar preparation.

321. A similar preparation.

322. A portion of the small intestine and mesentery, of a Beaver (*Castor Fiber*), injected. *Hunterian.*

323. A portion of the intestine of a Beaver, injected and spread out, to show its vascularity. *Hunterian.*

324. A portion of the intestine and mesentery of a Beaver, injected. *Hunterian.*

325. The cæcum and colon of a Beaver, injected: the great size of the former, and the convolutions of the latter part of the intestines, are well shown.
Hunterian.

326. The cæcum and colon of a Squirrel, from Pulo Condore, inflated and dried. *Hunterian.*

327. The stomach, and part of the intestines of the Flying Squirrel (*Pteromys Volucella*). *Hunterian.*

328. The stomach and intestinal canal of a Porcupine, injected; showing the bifid extremity of the cæcum. *Hunterian.*

329. The stomach, a portion of the duodenum, and the cæcum of a Porcupine, injected. *Hunterian.*

330. A portion of the small intestine of a Porcupine, injected. *Hunterian.*

331. The stomach, small intestines, and cæcum of a Rabbit, injected. *Hunterian.*
332. The stomach and intestines of an animal of the order Rodentia: the colon resembles that of the Java Hare. *Hunterian.*
333. The gall-bladder of a similar animal. *Hunterian.*
334. The stomach of the Brown Paca (*Cœlogenus subniger*), injected. *Hunterian.*
335. A portion of the liver of the Brown Paca, with the gall-bladder attached. *Hunterian.*
336. The cæcum of a Sloth (*Bradypus tridactylus*), inflated and dried, *Hunterian.*
337. Salivary ducts of an Elephant, injected. *Hunterian.*
338. A longitudinal section of the stomach of an Elephant (*Elephas Indicus*).
See Home's Comp. Anat. vol. ii. tab. XVIII. *Hunterian.*
339. The hepatic duct of an Elephant, injected and corroded. *Hunterian.*
340. Lymphatics from the liver of an Elephant, injected. *Hunterian.*
341. A portion of the jejunum of an Elephant, injected, and opened longitudinally. *Hunterian.*
342. A small portion of the same intestine, unopened. *Hunterian.*
343. A similar preparation. *Hunterian.*
344. A portion of the small intestine of an Elephant, injected; in longitudinal section. *Hunterian.*
345. A similar preparation. *Hunterian.*
346. A similar preparation. *Hunterian.*
347. A portion of small intestine of an Elephant, in transverse section, injected. *Hunterian.*
348. A portion of the small intestine of an Elephant, injected, in transverse section, with the mesentery attached. *Hunterian.*
349. A similar preparation. *Hunterian.*

350. A portion of the small intestine of an Elephant, in transverse section. *Hunterian.*
351. A portion of the mesentery of an Elephant, injected. *Hunterian.*
352. A longitudinal section of the cæcum of an Elephant. *Hunterian.*
353. The sublingual gland of a Boar, with its duct, injected and corroded. *Hunterian.*
354. The stomach and spleen of a Hog, injected.
Presented by Sir A. Cooper, Bart.
355. A portion of the small intestine of a Boar, injected. *Hunterian.*
356. A portion of the small intestine and mesentery of a Boar, injected. *Hunterian.*
357. The cæcum and colon of a Hog, injected. *Hunterian.*
358. A strip of the intestine of a Hog, minutely injected. *Hunterian.*
359. A similar preparation. *Hunterian.*
360. A similar preparation. *Hunterian.*
361. A similar preparation. *Hunterian.*
362. The stomach of a Pecary (*Sus Tajassu*), opened to show its division into three cavities. *Hunterian.*
363. A portion of intestine and mesentery, injected; in which the arrangement of the vessels is similar to those of the Hog. *Hunterian.*
364. A similar preparation, injected. *Hunterian.*
365. A similar preparation, injected. *Hunterian.*
366. The stomach of a Horse (*Equus Caballus*), injected. *Hunterian.*
367. The cæcum of a Horse, a portion of which has been removed to show the termination of the ileum. *Hunterian.*
368. The cæcum of a Horse. *Hunterian.*
369. The stomach, duodenum, and cæcum of a Foal, injected. *Hunterian.*
370. A portion of the jejunum of a Foal, injected. *Hunterian.*

371. The cæcum of a young Foal, injected. *Hunterian.*
372. The stomach of a female Bactrian Camel (*Camelus Bactrianus*), injected ; with the first, second, third, and fourth cavities which compose it, laid open to show their structure and communication. This preparation shows the cells in the first and second cavities, for containing water, remarkably distinct. *Purchased.*
373. A portion of the second cavity of the stomach of a Camel, to show the cells. *Hunterian.*
374. A similar preparation. *Hunterian.*
375. A similar preparation. *Hunterian.*
376. A similar preparation. *Hunterian.*
377. The cæcum of a Camel. *Hunterian.*
See Home's Comp. Anat. vol. ii. tab. cxx.
378. The stomach of the Lama (*Camelus Glama*), injected. *Purchased.*
379. The stomach and intestines of a fetal Deer, injected, showing the four bags which compose a ruminating stomach. *Hunterian.*
380. The cæcum and colon of a Deer, injected. *Hunterian.*
381. The stomach of a fetal Calf, injected. *Hunterian.*
382. The stomach of a Ruminant, injected. *Hunterian.*
383. The stomach and intestines of a fetal Ruminant, showing the fourth cavity, or true stomach, brought into close contact with the lower end of the œsophagus, from which it immediately receives the milk, prior to the developement of the ruminating cavities. *Hunterian.*
384. The cæcum and colon of an Antelope, inflated and dried. (Species not known.) *Hunterian.*
385. The stomach of a Goat (*Capra Hircus*), opened to show its four cavities. *Hunterian.*
386. The cæcum and colon of a Goat, injected. *Hunterian.*
387. The stomach of a Porpesse (*Delphinus Phocæna*), with its three cavities opened, to show their structure and communication. *Hunterian.*

388. The stomach of a Porpesse, injected, with its cavities similarly displayed. *Hunterian.*
389. The stomach, liver, and spleens of a Porpesse, injected. *Presented by Sir A. Carlisle.*
390. A portion of the liver of a Porpesse, injected and corroded. *Hunterian.*
391. The hepatic vessels of a Porpesse, injected and corroded. (Imperfect.) *Hunterian.*
392. A portion of the small intestine of a Porpesse, showing the longitudinal arrangement of the valves. *Hunterian.*
393. A portion of the small intestine of a Porpesse, injected. *Hunterian.*
394. A similar preparation. *Hunterian.*
395. The cæcum of a Porpesse, injected. *Hunterian.*
396. The stomach of a Whale, with its cavities exposed. *Hunterian.*
397. The cæcum of the Bottle-nose Whale, in longitudinal section. *Hunterian.*
398. The gall-bladder of a small Bottle-nose Whale, showing the hepato-cystic ducts terminating in it, one on each side. *Hunterian.*
399. The gall-bladder of a Whale, differing only in size from the preceding preparation. (Filled with plaster.) *Hunterian.*
400. A portion of the small intestine and mesentery of a Whale-bone Whale, with the arteries, veins, and lacteals, injected. *Hunterian.*
401. A portion of the small intestine of the Bottle-nose Whale, with the blood-vessels and lacteals injected (the latter with quicksilver). *Hunterian.*
402. A portion of the small intestine of the Bottle-nose Whale, injected, showing its internal sacculated structure. *Hunterian.*
403. A similar preparation. *Hunterian.*
404. A similar preparation. *Hunterian.*
405. A similar preparation. *Hunterian.*
406. A similar preparation. *Hunterian.*
407. The cæcum of a Whale-bone Whale, injected. *Hunterian.*

408. The head, neck, and anterior part of the trunk of an Eagle (*Aquila*), the œsophagus and stomach of which are injected and exhibited in situ. The os hyoides and trachea are also preserved; the latter is laid open from the glottis to its bifurcation. *Hunterian.*
409. The stomach of a small Eagle, injected. The glandular structure surrounding the lower part of the œsophagus, and the radiation of the muscular fibres from the lateral tendons, are shown in this preparation. *Hunterian.*
410. The œsophagus, crop, and stomach of a Golden Eagle (*Aquila regia*). *Hunterian.*
411. The stomach of an Accipitrine Bird. *Hunterian.*
412. The stomach and gastric glands of a Carnivorous Bird, injected. *Hunterian.*
413. A portion of the intestine of a Crow (*Corvus Corone*), with the cæca attached, showing their diminutive size in carnivorous birds. *Hunterian.*
414. A portion of the small intestine and mesentery of an Ostrich, injected. *Hunterian.*
415. A portion of the intestine and mesentery of an Ostrich, injected. *Hunterian.*
416. A portion of the small intestine of an Ostrich, injected. *Hunterian.*
417. A similar preparation. *Hunterian.*
418. A similar preparation. *Hunterian.*
419. A similar preparation. *Hunterian.*
420. A similar preparation. *Hunterian.*
421. The cæca of an Ostrich, injected. *Hunterian.*
422. The cæca of an Ostrich, injected, showing the internal valvulæ. *Hunterian.*
423. The cæca of an Ostrich, injected. *Hunterian.*
424. A portion of one of the cæca of an Ostrich, injected. *Hunterian.*
425. A similar preparation. *Hunterian.*
426. A similar preparation. *Hunterian.*

427. A similar preparation. *Hunterian.*
428. A similar preparation. *Hunterian.*
429. A similar preparation. *Hunterian.*
430. A similar preparation. *Hunterian.*
431. A similar preparation. *Hunterian.*
432. The cæca of a Cassowary. *Hunterian.*
433. The œsophagus, stomach, and duodenum, with the gall-bladder, of a Bustard (*Otis Tarda*), injected. *Hunterian.*
434. The lower portion of the small intestine, with the cæca, colon, rectum, and cloaca, of a Bustard, injected. *Hunterian.*
435. A small portion of the intestine of the Cyrus Crane (*Ardea Antigone*), with bristles introduced into the pancreatic and biliary ducts. *Hunterian.*
436. The œsophagus and crop of a Turkey (*Meleagris Gallopavo*), injected, and opened to show the communication of the sac with the œsophageal tube. *Hunterian.*
437. A portion of the duodenum, with the gall-bladder and its duct, of a Turkey, injected. *Hunterian.*
438. The œsophagus, to which the trachea is left attached, the stomach, pyloric valve, and commencement of the duodenum, of a Bittern (*Ardea stellaris*). *Hunterian.*
439. The stomach, and glands in the œsophagus, of the Spoon-bill (*Platalea*). *Hunterian.*
440. The œsophagus, stomach, and duodenum, of a Corvorant (*Pelecanus Carbo*). *Hunterian.*
441. The gall-bladder of a Goose (*Anas Anser*). *Hunterian.*
442. A portion of the duodenum of a Bird, with the gall-bladder and duct. *Hunterian.*
443. The stomach of a Turtle, injected. *Hunterian.*
444. The stomach of a Turtle, injected. *Hunterian.*

445. The spleen of a Turtle? injected and corroded. (Imperfect.) *Hunterian.*
446. A portion of the small intestine of a Turtle, injected. *Hunterian.*
447. A portion of the small intestine and mesentery of a Turtle, with the arteries and veins injected with wax, and the lacteals with quicksilver. *Hunterian.*
448. The cæcum of a small Tortoise, injected. *Hunterian.*
449. The cæcum of a large Tortoise, injected. *Hunterian.*
450. Part of the stomach, the pylorus, duodenum, and gall-bladder of a small Crocodile: the cystic and hepatic ducts are marked by bristles. *Hunterian.*
451. Part of the liver, with the gall-bladder, of an Iguana (*Lacerta Iguana*).
Hunterian.
452. The stomach, spleen, and intestines of a large Iguana, injected. *Hunterian.*
453. The stomach and part of the small intestines of a Cameleon, injected.
Hunterian.
454. The stomach and part of the small intestines of a Frog (*Rana temporaria*), injected.
Hunterian.
455. The cæcum of a large Snake, injected. *Presented by Mr. Clift.*
456. The gall-bladder and duct of the Wolf-fish (*Anarhichas Lupus*). *Hunterian.*
457. The stomach of the Frog-fish (*Lophius Piscatorius*), with a portion of the duodenum, the gall-bladder, and its duct. *Hunterian.*
458. The stomach of a Sea Parrot, or Scarus. *Hunterian.*
459. The stomach of a Scarus, injected. *Hunterian.*
460. A part of the liver of a Cod-fish (*Gadus Morhua*), with the gall-bladder.
Hunterian.
461. The gall-bladder of a Cod-fish, inflated and dried. *Hunterian.*
462. A similar preparation. *Hunterian.*
463. The stomach, and a portion of the intestine, of a Salmon (*Salmo Salar*), to show the pyloric appendages. *Hunterian.*
464. Part of the small intestine of a Lump-fish (*Cyclopterus Lumpus*), injected.
Hunterian.

465. The stomach and duodenum of a Conger Eel (*Muraena Conger*), injected. *Hunterian.*
466. The gall-bladder of a Tetrodon. *Hunterian.*
467. A portion of the intestine of a Diodon, or Crop-fish. *Hunterian.*
468. The hepatic duct of a Fish. *Hunterian.*
469. The gall-bladder and duct of a Shark, injected. *Hunterian.*
470. The gall-bladder and duct of a Dog-fish (*Squalus canicula*). *Hunterian.*
471. The gall-bladder and duct of a Dog-fish, injected. *Hunterian.*
472. The stomach and spiral valve of the intestine of a Ray, injected. *Hunterian.*
473. The intestine of a cartilaginous Fish, showing the spiral valve. (Imperfect.) *Hunterian.*
474. A cast in wax of the spiral intestine of a Sturgeon (*Acipenser Sturio*). *Hunterian.*
475. The stomach and a portion of the intestine of a Cuttle-fish (*Sepia Loligo*), inflated and dried. *Hunterian.*
476. The stomach and part of the intestine of a Cuttle-fish (*Sepia Octopodia*), injected and corroded. *Hunterian.*
477. The stomach of a Snail (*Helix Pomatia*), injected and inflated. *Hunterian.*
478. The stomach and intestine of a Snail, filled with wax and corroded. *Hunterian.*
479. The stomach and intestine of a Snail, injected. *Hunterian.*
480. The stomach, liver, and intestine of a Snail, injected and corroded. *Hunterian.*
481. The stomach, liver, and intestine of the animal of a Pecten (*Tethys*), injected and corroded. *Hunterian.*

Male Generative and Urinary Organs.

482. A human Penis, injected, attached to the pubes. *Hunterian.*

483. A human Penis, injected, attached to the pubes.
Presented by Sir Wm. Blizard. 1811.
484. A human Penis, injected. *Hunterian.*
485. A human Penis, injected. *Hunterian.*
486. A human Penis, injected. *Hunterian.*
487. A human Penis, injected. *Hunterian.*
488. A human Penis, injected. *Presented by Sir Wm. Blizard. 1811.*
489. A human Penis, injected. *Presented by Sir Wm. Blizard. 1811.*
490. A human Penis, injected: the vena dorsalis is filled with quicksilver.
Presented by Sir Wm. Blizard. 1811.
491. A human Penis in longitudinal section: the corpora cavernosa are injected with wax; the corpus spongiosum and glans penis are filled with quicksilver. *Hunterian.*
492. The corpora cavernosa of a human Penis, injected with quicksilver. *Hunterian.*
493. One of the corpora cavernosa of a human Penis, injected with quicksilver, and in longitudinal section, to show its structure. *Hunterian.*
494. The corpora cavernosa of a human Penis, injected.
Presented by Sir Wm. Blizard. 1815.
495. A human Penis, minutely injected and corroded. *Hunterian.*
496. The corpora cavernosa of a human Penis, injected.
Presented by Sir Wm. Blizard. 1811.
497. The corpora cavernosa of a human Penis, injected and corroded.
Presented by Sir Wm. Blizard. 1811.
498. A similar preparation, not corroded. *Presented by Sir Wm. Blizard. 1811.*
499. The skin of the Penis and Scrotum of one of the natives of the Galla country, in Abyssinia, who, with upwards of eighteen hundred others of the tribe, had suffered mutilation of the external genital organs; a cruelty practised by the Abyssinians upon their prisoners of war. In

Mr. Salt's "Travels in Abyssinia," p. 293, when describing the results of a battle between the armies of the Ras, and Goree, a Galla chief, in reference to this custom, he says, "On the following morning, no less than eighteen hundred and sixty-five of the barbarous trophies which are collected on these occasions were thrown before the Ras, at his encampment, under the high fortress of Zingilla."—"This horrible custom (if it be not borrowed from the Jews) is probably of Galla origin, and is early mentioned as being practised on the east coast of Africa."—Vide De Bry, 1599, De Caffrorum Militiâ. "Victores, victis, cæsis et captis, pudenda excident, quæ exsiccata regi in reliquorum procerum presentio offerunt," &c. *Presented by the late Henry Salt, Esq. 1811.*

- 500. A human Testicle, with the epididymis injected with quicksilver. *Hunterian.*
- 501. A similar preparation. *Hunterian.*
- 502. A human Testicle and Spermatic Chord, similarly injected. *Hunterian.*
- 503. Human Vesiculæ Seminales and Vasa Deferentia, injected with quicksilver. *Hunterian.*
- 504. A similar preparation. *Hunterian.*
- 505. A similar preparation. *Hunterian.*
- 506. A human Vas Deferens and Vesicula Seminalis, similarly injected. *Hunterian.*
- 507. A cast in wax of the male human Urinary Bladder and Urethra. *Hunterian.*
- 508. A fetal human Urinary Bladder, injected. *Hunterian.*
- 509. A male human Urinary Bladder. *Hunterian.*
- 510. A human Urinary Bladder, distended with wax ; with the prostate gland ; and showing posteriorly, the ureters, the vesiculæ seminales, and the vasa deferentia. *Presented by Sir Wm. Blizard. 1811.*
- 511. A cast in wax of the human male Urethra. *Presented by Sir E. Home, Bart.*
- 512. A cast in wax of the human male Urethra. *Presented by Sir E. Home, Bart.*
- 513. A cast in wax of the human male Urethra. *Presented by Sir E. Home, Bart.*

514. A human Kidney, minutely injected and corroded. *Hunterian.*
515. A human Kidney, with the pelvis and blood-vessels injected and corroded.
(Imperfect.) *Hunterian.*
516. A human Kidney, injected and corroded. *Hunterian.*
517. A human Kidney, injected and corroded. *Hunterian.*
518. A human Kidney, minutely injected and corroded. *Hunterian.*
519. A human Kidney, injected and corroded. *Hunterian.*
Presented by Sir Wm. Blizard. 1811.
520. A human Kidney, injected and corroded.
Presented by Wm. Lynn, Esq. 1820.
521. The penis of a Monkey, injected. *Hunterian.*
522. The penis of a Monkey, injected. *Hunterian.*
523. The penis of a large Monkey, injected. *Hunterian.*
524. The penis of a large Monkey, injected. *Hunterian.*
525. The penis of a large Black-faced Monkey, injected. *Hunterian.*
526. The vesicula seminalis of the same Monkey, injected. *Hunterian.*
527. The testicle of a Mandrill (*Simia Mormon*), injected. *Hunterian.*
528. The urinary bladder of a large brown Monkey. *Hunterian.*
529. The penis of a black Bear (*Ursus Arctos*), injected. *Hunterian.*
530. The penis of a Bear, injected. *Hunterian.*
531. The penis of a Quadruped, evidently of the genus *Ursus*. The penis terminates in a broader disc than that of the black bear, No. 529, and is shorter in proportion to its bulk. It has, however, an os penis.
Hunterian.
532. The bladder and penis of a Bear, injected. This preparation shows the os penis very distinctly. *Hunterian.*
533. The testicle and spermatic chord of a Bear: the epididymis is injected with quicksilver. *Hunterian.*
534. A cast in wax of the pelvis of the kidney of a small black Bear. *Hunterian.*

535. The penis of a Ferret ([♂]Putorius Furo), injected with quicksilver. *Hunterian.*
536. The penis of a small Viverrine Animal, injected with quicksilver. *Hunterian.*
537. The penis of an Otter, injected with quicksilver. *Hunterian.*
538. The penis of an Otter, injected with quicksilver. *Hunterian.*
539. The penis of an Otter, injected. *Hunterian.*
540. The os pubis, with the bladder, rectum, anal glands, penis and testes, injected, of a large Canine Animal, probably Dog; showing the lateral dilatation of the corpora cavernosa when injected. *Hunterian.*
541. The penis of a similar animal, injected. *Hunterian.*
542. The penis of a similar animal, the veins of which have been injected with quicksilver, and a longitudinal section made to show the communicating cellular structure of one of the corpora cavernosa. *Hunterian.*
543. The penis of a Dog (Canis familiaris), injected. *Hunterian.*
544. The testicle and spermatic chord of a Dog: the epididymis is injected with quicksilver. *Hunterian.*
545. The testicle and spermatic chord of a Dog, similarly injected. *Hunterian.*
546. The penis of a Fox (Canis Vulpes), injected; in external appearance resembling that of the dog. *Hunterian.*
547. The blood-vessels of the kidney of a Fox, injected and corroded. (Imperfect.) *Hunterian.*
548. The penis, bladder, rectum, and anal glands of a Lion (Felis Leo), injected. *Hunterian.*
549. The symphysis pubis, with the urinary bladder and penis, of a Lion, injected. *Hunterian.*
550. The testicle of a Lion: the epididymis is injected with mercury. *Hunterian.*
551. The last dorsal and the first three lumbar vertebræ of a Lion, with the aorta and vena cava, and the vessels of the kidneys, injected and corroded. *Hunterian.*

552. The vessels of the kidney of a Lion, injected and corroded. *Hunterian.*
553. The vessels of the kidney of a Lion, injected and corroded. *Hunterian.*
554. The vessels of the kidney of a Lion, injected and corroded. *Hunterian.*
555. The kidney of a Lion, injected and corroded. *Hunterian.*
556. The pelvis and blood-vessels of the kidney of a Lion, injected and corroded. *Hunterian.*
557. A cast in wax of the pelvis of the kidney of a Lion. *Hunterian.*
558. The blood-vessels of the kidney of a Tiger (*Felis Tigris*), injected and corroded. *Hunterian.*
559. The kidney of a Seal (*Phoca*), injected and corroded: the large size of the veins and their superficial reticulate distribution are well shown. *Hunterian.*
560. A cast in wax of the pelvis of the kidney of a Seal. *Hunterian.*
561. A cast in wax of the pelvis of the kidney of a Seal. (Imperfect.) *Hunterian.*
562. The penis of an Opossum (*Didelphis*), injected. As in the kangaroo, the glans penis is bifid, forming two diverging cornua, the urethra terminating in the division thus formed, between them. *Hunterian.*
563. The urinary bladder and uterus of an Opossum, minutely injected; the bladder and vagina are filled with wax. *Hunterian.*
564. The penis of a Java Hare (*Cavia Aguti*), injected; showing the singular manner in which the glans penis is furnished with sharp horny serrations, or barbs. *Hunterian.*
565. The urinary bladder of the Paca (*Cœlogenus*). *Hunterian.*
566. The penis, urinary bladder, rectum, and anal sacs of an animal of the order Rodentia. The glans penis, which terminates in a flattened disc, is studded with numerous minute cuticular or horny papillæ. *Hunterian.*
567. A portion of the penis of a similar animal. *Hunterian.*
568. The urinary bladder of an Armadillo (*Dasypus*). *Hunterian.*
569. The penis of an Elephant (*Elephas Indicus*), injected. *Hunterian.*

570. The urinary bladder, and part of the penis, of an Elephant, injected. *Hunterian.*
571. The penis of a Boar (*Sus Scrofa*), within its sheath, injected. *Hunterian.*
572. The penis of a Boar, injected. *Hunterian.*
573. The penis, with the neck of the bladder, of a Boar. The vesiculæ are injected with quicksilver; one of them is in section, to show its structure. *Hunterian.*
574. The penis of a Boar, injected. *Hunterian.*
575. The lateral sacs at the termination of the sheath of the penis of a Boar. *Hunterian.*
576. The testicle of a Boar: the epididymis is injected with quicksilver. *Hunterian.*
577. The epididymis of a Boar, injected with quicksilver, and partially unravelled and displayed in a circular form. *Hunterian.*
578. The muscles of the lower part of the abdomen of a Boar, with the testicle supported by the cremaster: the passage of the spermatic chord through the abdominal ring is shown, and the tunica vaginalis has been opened, to expose the epididymis, and body of the testicle. *Hunterian.*
579. The kidney of a Boar, injected and corroded. *Hunterian.*
580. The penis of a Horse (*Equus Caballus*), injected. *Hunterian.*
581. The testicle of a Horse, with the epididymis injected with quicksilver. *Hunterian.*
582. The pelvis of a Horse's kidney, injected and corroded. *Hunterian.*
583. The vessels, pelvis, and ureter of the kidney of an Ass (*Equus Asinus*), injected and corroded. *Hunterian.*
584. The penis of a Zebra (*Equus Zebra*), injected, resembling that of the horse. *Hunterian.*
585. The urinary bladder of a Zebra, with the commencement of the urethra, the vesicula seminalis and vasa deferentia, injected. *Hunterian.*

586. The pelvis of the kidney of a Zebra, injected and corroded. *Hunterian.*
587. The penis of a Camel (*Camelus Dromedarius*), injected. *Hunterian.*
588. A portion of the penis of a Giraffe (*Camelopardalis Giraffa*), retracted in a similar manner to that of the bull. *Hunterian.*
589. The testicle of a Camel, with the epididymis injected with quicksilver. *Hunterian.*
590. The testicle of a Ram (*Ovis Aries*), with the epididymis injected with quicksilver. *Hunterian.*
591. The penis of a Bull (*Bos Taurus*), injected ; exhibiting the sigmoid flexure produced in it by the retractor muscles : to show which circumstance they have been left attached. *Hunterian.*
592. The penis of a Bull, injected (in transverse section). *Hunterian.*
593. The lower part of the bladder, and a portion of the penis of a Bull, with the vesiculæ seminales and vasa deferentia injected with quicksilver : those of the left side are in section, to show their structure. *Hunterian.*
594. The lower part and neck of the urinary bladder, with the vesiculæ seminales and vasa deferentia of a Bull, injected. *Hunterian.*
595. The testicle of a Bull, with the epididymis injected with quicksilver. *Hunterian.*
596. The spermatic artery of a Bull, unravelled and extended to show its length and tortuosity. *Hunterian.*
597. A portion of the spermatic artery of a Bull, injected and corroded. (Imperfect.) *Hunterian.*
598. A similar preparation. *Hunterian.*
599. The spermatic artery of a Bull, injected and corroded. *Hunterian.*
600. A portion of a spermatic artery, injected, showing its extreme tortuosity. *Hunterian.*
601. The kidney of a Bonassus (*Bos Bison*), injected and corroded. *Hunterian.*
602. The kidney of an Ox, injected and corroded. *Hunterian.*
603. A kidney, injected and corroded. (Animal not known.) *Hunterian.*

604. The vessels of a kidney, injected and corroded. (Animal not known.)
Hunterian.
605. The kidney of a Quadruped, injected and corroded. *Hunterian.*
606. The pelvis of the kidney of a large Quadruped, injected and corroded.
Hunterian.
607. The penis of a Porpesse (*Delphinus Phocæna*), injected; with the pelvic bones and urinary bladder attached. *Hunterian.*
608. The penis of a Bottle-nose Whale, injected, five feet in length. In the cetaceous class of animals the structure of the penis is much upon the principle of that of the quadruped. "It is composed of two crura, uniting into one corpus cavernosum; which the corpus spongiosum seems first to enter. In the porpesse, at least, the urethra is found nearly in the centre of the corpus cavernosum; but towards the glans, it appears to separate or emerge from it, and becoming a distinct spongy body, runs along its under surface, as in quadrupeds. The corpus cavernosum in some is broader from the upper part to the lower, than from side to side; but in the porpesse, has the appearance of being round, becoming smaller forwards, so as to terminate almost in a point some distance from the end of the penis. The glans does not spread out as in many quadrupeds, but seems to be merely a plexus of veins covering the anterior end of the penis, yet is extended a good way further on, and is in some no more than one vein deep.
- "The crura penis are attached to two bones, which are nearly in the same situation, and in the same part of the pelvis, as those to which the penis is attached in quadrupeds; but those bones are only for the insertion of the crura, and not for the support of any other part, like the pelvis in those animals which have posterior extremities, neither do they meet at the fore part, or join the vertebræ of the back."—See Hunter "On the Structure and Œconomy of Whales," vol. lxxvii. p. 442.
609. The penis of a Whale, in a dried state, seven feet in length. *Hunterian.*
610. The skin of the penis of a Whale, in a dried state, six feet six inches in length. *Hunterian.*

611. The penis of a Whale, in a dried state, five feet nine inches in length. *Hunterian.*
612. The skin of the penis of a Whale-bone Whale (*Balæna Mysticetus*), five feet in length. *Presented by Wm. Gaitskell, Esq.*
613. A portion of the corpus spongiosum urethræ of a Whale, injected and corroded. *Hunterian.*
614. A portion of the vas deferens of a Whale, injected and displayed, to show its tortuosity. *Hunterian.*
615. Part of the kidney of a Goose (*Anas Anser*), injected and corroded. *Hunterian.*
616. Two small portions of the kidney of the Lump-fish (*Cyclopterus Lumpus*), minutely injected and dried. *Hunterian.*

Female Generative, Urinary, and Lactiferous Organs.

617. A human gravid Uterus, injected and corroded. (Imperfect.) *Hunterian.*
618. The vessels of a human gravid Uterus, injected and corroded; showing the large size of the veins. *Hunterian.*
619. A portion of a human gravid Uterus, injected. *Hunterian.*
620. A human Placenta, and the commencement of the vessels of the Funis, injected. *Hunterian.*
621. A human Placenta, injected with quicksilver, and left attached to a portion of the uterus, which is uninjected. *Hunterian.*
622. A human Placenta and Funis, injected and corroded. (Imperfect.) *Hunterian.*
623. A human twin Placenta, with the vessels of the Funis attached, injected. *Hunterian.*
624. A human twin Placenta, injected. *Hunterian.*
625. A human twin Placenta, injected. *Hunterian.*

626. A small portion of a human Placenta and the Funis, injected. *Hunterian.*
627. A cast, in wax, of a female human Urinary Bladder. *Hunterian.*
628. A portion of the uterus of a Bitch (*Canis familiaris*, foem.), with the placenta attached. *Hunterian.*
629. The urinary bladder, uterus, and vagina of a Sow (*Sus domestica*), in an unimpregnated state, injected. The left horn and ovary have been removed. *Hunterian.*
630. The left horn and ovary of the preceding Uterus, injected. *Hunterian.*
631. The termination of one of the horns of the impregnated uterus of a Sow, injected. *Hunterian.*
632. A portion of one of the horns of the uterus of a Sow, injected. *Hunterian.*
633. A portion of the uterus of a Sow, injected and laid open. *Hunterian.*
634. A similar preparation. *Hunterian.*
635. Mammary glands of a Sow, injected and corroded. *Hunterian.*
636. A portion of the spermatic artery of a female Camel. *Hunterian.*
637. A portion of the amnion of a Mare (*Equus Caballus*, foem.), injected. *Hunterian.*
638. A portion of the amnion of a Foal, injected. *Hunterian.*
639. The amnion of a Mare, with the funis attached and injected. *Hunterian.*
640. A portion of the chorion of a Mare, injected. *Hunterian.*
641. A portion of the chorion of a Mare, injected. *Hunterian.*
642. A similar preparation. *Hunterian.*
643. A small portion of the chorion of a Mare, injected. *Hunterian.*
644. A portion of the chorion of a Mare, with the interstices injected with wax. *Hunterian.*
645. A similar preparation. *Hunterian.*
646. A portion of the chorion of a Mare; the interstices filled with air. *Hunterian.*

647. A small portion of the chorion of a Mare ; its internal membrane taken off. *Hunterian.*
648. A small portion of the external membrane of the chorion of a Mare. *Hunterian.*
649. A portion of the chorion of a Mare, with the interstices injected. *Hunterian.*
650. The urinary bladder of a fetal Foal, showing the internal iliac or hypogastric arteries passing forwards and upwards along the sides of the bladder to the funis. *Hunterian.*
651. A similar preparation of the urinary bladder, and hypogastric arteries, of a fetal Foal, injected. *Hunterian.*
652. The lactiferous ducts of a Mare, injected and corroded. (Imperfect.) *Hunterian.*
653. A portion of the amnion of an Ass (*Equus Asinus*, fœm.), injected. *Hunterian.*
654. A similar preparation. *Hunterian.*
655. The amnion and chorion, lining one horn of the uterus of an Ass, with the funis, having the arteries and veins injected. *Hunterian.*
656. A portion of the chorion of an Ass, injected. *Hunterian.*
657. A portion of the chorion of an Ass, injected. *Hunterian.*
658. A portion of the chorion of an Ass, injected. *Hunterian.*
659. A portion of the chorion of an Ass, injected. *Hunterian.*
660. A portion of the chorion of an Ass, injected. *Hunterian.*
661. A portion of the chorion of an Ass, which lines the extremity of the horn of the uterus. *Hunterian.*
662. The vessels of the funis of a fetal Calf, injected. The urinary bladder, and a portion of the descending aorta, are preserved, to show the course of the hypogastric arteries. *Hunterian.*
663. One of the umbilical arteries of a Calf, injected. *Hunterian.*
664. A portion of the chorion of a Porpesse, injected. *Hunterian.*

Nervous System.

665. A human body, dissected for the nerves, and preserved in a dried state, according to the method adopted by Mr. Joseph Swan in the preparation of anatomical subjects, by which they are protected from the ordinary effects of exposure to the air, the attacks of insects, &c. This and the following preparation accompanied the Dissertation which obtained the first Collegial Anatomical Prize; the subject of which was "A minute Dissection of the Nerves of the Medulla Spinalis, from their origins to their terminations, and to their conjunctions with the Cerebral and Visceral Nerves." The object of this dissection was to give as comprehensive a view as was possible in one preparation, of the spinal, the cerebral, and the sympathetic nerves; whilst the most minute and intricate branches, forming conjunctions between these several nerves, or terminating in different structures, were exhibited in preparations preserved in spirit.

Presented by Joseph Swan, Esq. 1824.

666. A preparation of the human body, of which the upper part of the cranium, the sternum with the anterior parts of the ribs, and the extremities have been removed. Its posterior part shows the spinal marrow, and the origin of the posterior bundles of nerves; its anterior part exhibits some portions of the sympathetic, and spinal nerves more particularly than in the preceding preparation.

Presented by Joseph Swan, Esq.

667. A preparation of the cervical nerves of the human subject. This and the eight succeeding preparations of nerves, formed a part of the illustrations of a "Dissertation on the Treatment of Morbid Local Affections of Nerves," which obtained the Jacksonian Prize for 1819.

Presented by Joseph Swan, Esq.

668. The opposite or corresponding part of the preceding preparation.

Presented by Joseph Swan, Esq.

669. A preparation exhibiting the superficial branches of the portio dura, and their connections with the cervical nerves, and the branches of the fifth, in the human subject.

Presented by Joseph Swan, Esq.

670. A preparation exhibiting the connections between the sub-occipital, the anterior branch of the first cervical nerve, the sympathetic, the par vagum, and the ninth, as well as the communications of the first cervical ganglion of the sympathetic with the first and second cervical nerves, in the human subject. *Presented by Joseph Swan, Esq.*

671. This preparation, on the anterior, and on the right side, shows the first, second, and third trunks of the fifth, proceeding from the Gasserian ganglion; the sympathetic and its communications, with all the cervical and some of the dorsal nerves; the par vagum, the ninth, some of the cardiac nerves, and the phrenic. On the left side it shows all the anterior and posterior branches of the cervical nerves; the par vagum, the ninth, the sympathetic, and the pharyngeal plexus. Human.

Presented by Joseph Swan, Esq.

672. A preparation, showing the pharyngeal plexus, and some of the cardiac nerves, in the human subject. *Presented by Joseph Swan, Esq.*

673. A preparation, showing the anterior and posterior branches of the sub-occipital nerves, and their communications with the first cervical nerve; the accessory, and its branch given to the pharyngeal plexus. Human.

Presented by Joseph Swan, Esq.

674. A preparation, showing the occipital nerve passing on the occiput; the branches of the second cervical nerve sent to the back of the ear, and the skin and scalp at the back of the head; the branches of the second and third sent to the skin covering the clavicles and the acromion; also the part of the accessory sent to the trapezius muscle. Human.

Presented by Joseph Swan, Esq.

675. A preparation, showing the terminations of the scapular nerve, and the course of the articular nerve, in the human subject.

Presented by Joseph Swan, Esq.

676. A preparation of a Horse's head in longitudinal section, showing the branches of the fifth and portio dura. *Presented by Joseph Swan, Esq.*

677. A preparation of a human superior extremity, showing how the arteries,

veins, and nerves may be preserved from the usual effects of moderate heat, damp, and insects. *Presented by Joseph Swan, Esq.*

678. A similar preparation of a human superior extremity, for the purpose of showing how much the size and the general appearance of the muscles may be preserved. *Presented by Joseph Swan, Esq.*

679. The lungs of a Dog, to show to what an extent the substance may be preserved. *Presented by Joseph Swan, Esq.*

680. A similar preparation of the liver of a Dog. *Presented by Joseph Swan, Esq.*

681. A similar preparation to show the valves of the heart of a Calf. *Presented by Joseph Swan, Esq.*

682. A similar preparation. *Presented by Joseph Swan, Esq.*

683. A common Fowl dissected for the muscles, and prepared in a similar manner. *Presented by Joseph Swan, Esq.*

Organs of Vision, &c.

684. Human Eye-lids, injected, with bristles introduced into the puncta lachrymalia. *Hunterian.*

685. A similar preparation. *Hunterian.*

686. A similar preparation. *Hunterian.*

687. The eye and eye-lids of a Whale-Bone Whale (*Balæna Mysticetus*). *Hunterian.*

“The muscles which open the eye-lids are very strong; they take their origin from the head, round the optic nerve, which in some requires their being very long, and are so broad as almost to make one circular muscle round the whole of the interior straight muscles of the eye itself. They may be divided into four; a superior, an inferior, and one at each angle: as they pass outwards to the eye-lids, they diverge and become broader, and are inserted into the inside of the eye-lids almost equally all round. They may be termed the dilatores of the eye-lids; and, before they reach their insertion, give off the external straight muscles, which are small, and inserted into the sclerotic coat before the transverse axis of the eye:

these may be named, the elevator, depressor, adductor, and abductor, and may be dissected away from the others as distinct muscles. Besides these four, going from the muscles of the eye-lid to the eye itself, there are two which are larger, and include the optic nerve with the plexus. As these pass outwards, they become broad, and may in some be divided into four; they are inserted into the sclerotic coat, almost all round the eye, rather behind its transverse axis. The two oblique muscles are very long; they pass through the muscles of the eye-lids, are continued on to the globe of the eye, between the two sets of straight muscles, and at their insertion are very broad, a circumstance which gives great variation to the motion of the eye. The arteries going to the coats of the eye form a plexus passing round the optic nerve, resembling in its appearance that of the spermatic artery in the bull and some other animals."—See Hunter "On the Structure and Œconomy of Whales," Philos. Trans. vol. lxxvii. p. 438.

688. The eye and eye-lids of a small Bottle-nose Whale, with the muscles attached. *Hunterian.*

689. The eye of a young Whale, the muscles of which have been removed. *Hunterian.*

690. The anterior half of the sclerotic coat with the cornea, of the eye of a Whale. *Hunterian.*

691. A longitudinal section of the skull of an Eagle, with the eye exposed in the orbit, showing the rim of osseous plates surrounding the cornea: the membrana nictitans and the muscles of the eye are also preserved. *Hunterian.*

692. A similar section of the skull of a smaller Eagle, showing the eye and membrana nictitans. *Hunterian.*

693. The eye of an Eagle, showing the osseous rim round the cornea, the membrana nictitans, and the muscles. *Hunterian.*

694. The cornea and osseous rim of the eye of the Secretary Vulture (*Falco Serpentarius*). *Presented by W. Clift.*

695. A similar preparation of the eye of the Great-horned Owl (*Strix Bubo*).
Hunterian.
696. The eye and eye-lids, with the membrana nictitans and muscles of the eye, of an Emeu (*Casuarius Emeu*).
Hunterian.
697. The osseous sclerotic coat of the eye of the Light-horseman Fish (*Ephippus gigas*).
Hunterian.
698. A similar preparation.
Hunterian.
699. A similar preparation, of a larger size.
Hunterian.
700. A similar preparation.
Hunterian.
701. The eye, and a portion of the eye-lids, of a Ray, with their muscles attached.
Hunterian.
702. The sclerotic coat of the eye of a Ray.
Hunterian.
703. A portion of the skull of a small Shark, with the eye and its muscles attached.
Hunterian.
704. The sclerotic coat of the eye of a Shark.
Hunterian.

Cutis, &c., injected.

705. Human cutis from the forehead and eye-brows, minutely injected.
Presented by Sir William Blizard.
706. A human Hand, with the cutis minutely injected.
Presented by Sir William Blizard.
707. A small human Hand, similarly injected. *Presented by Sir William Blizard.*
708. A human Foot, similarly injected. *Presented by Sir William Blizard.*
709. A portion of human cutis, minutely injected.
Presented by Sir William Blizard.
710. A portion of human fascia lata femoris, injected.
Presented by Sir William Blizard.

Models, Casts, &c.

711. A model, in ivory and glass, of the different coats and humours of the human Eye.
Hunterian.

712. Large models, in ivory, of the human Ossicula Auditus.

Presented by Sir A. Carlisle.

713. Similar models, in metal, of the human Ossicula Auditus.

Presented by Sir A. Carlisle.

714. A cast, in metal, of the cavities of the human internal Ear, showing the tympanum, mastoid cells, semicircular canals, cochlea, &c. *Hunterian.*

715. A similar cast, in metal, of the human internal Ear.

Presented by H. L. Thomas, Esq.

716. A similar cast, in metal, of the human internal Ear.

Presented by H. L. Thomas, Esq.

717. A similar cast, in metal, of the human internal Ear.

Presented by H. L. Thomas, Esq.

718. A similar cast, in metal, of the human internal Ear, without the mastoid cells.

Presented by H. L. Thomas, Esq.

719. A cast, in metal, of the cochlea and semicircular canals of the human Ear.

Presented by H. L. Thomas, Esq.

720. A similar cast.

Presented by H. L. Thomas, Esq.

721. A large model, in plaster, of the human external Ear.

Presented by Thomas Chevalier, Esq.

722. A plaster cast of the right hand of Patrick Cotter, an Irish Giant, whose height, in the year 1802, was eight feet seven inches and a half.

Presented by Sir A. Carlisle. 1819.

723. A similar cast.

Mus. Brookes.

724. A plaster cast of the left hand of M. Louis, the French Giant, whose height was seven feet four inches.

Presented by Sir A. Carlisle. 1822.

725. A small model, in bronze, of the human Body dissected to show the superficial muscles.

Hunterian.

726. A model, in wax, of the base of the human Brain, showing the origins of the cerebral nerves ; executed by Mr. William Tuson.

Presented by Herbert Mayo, Esq. 1830.

727. A model, in wax, of the human Face, on the left side of which the muscles and the supra- and infra-orbitary nerves are shown. The calvaria, and the hemispheres of the brain have been removed, to show the origins of the cerebral nerves, and their transmission through the base of the skull.

In the same case also, are contained models of the human eye, variously dissected, showing the course and distribution of the vessels in the orbit, the muscles, nerves, and blood-vessels of the coats and humours of the eye, and the lachrymal gland, sac, and ducts.—These and the three following models were executed by the Florentine artist Clemente Susini.

Purchased. 1802.

728. A model, in wax, of a human Arm and part of the Thorax, showing the muscles, blood-vessels, and nerves.

Purchased. 1802.

729. A model, in wax, of the human Heart, Aorta, and Vena cava, with their principal vessels. The cavities of the heart are laid open, to show their structure and valves. (This specimen is, in some respects, inferior in execution, and less correct in detail, than the preceding specimens.)

Purchased. 1802.

730. A model, in wax, exhibiting in situ, the Generative and Urinary Organs of an unimpregnated human female.

Presented by Charles Aug. Tulk, Esq. M.P. 1825.

731. A plaster cast of an African, from the life; by Sartini.

Hunterian.

732. A cast of the leg of a Negro.

Hunterian.

733. A similar cast.

Hunterian.

734. A study, in plaster, of the head of an African.

Hunterian.

735. A cast of the head and face of Ignatius Sancho, the author of "Sancho's Letters."

Hunterian.

736. A plaster cast of a head, representing "Sickness," from a statuary group in marble, by Bacon.

Presented by the late Henry Cline, Sen. Esq.

737. A plaster cast of a Shetland Pony, the integuments of which have been

removed on one side, to expose the superficial muscles. The pony was presented to Mr. Hunter by the Duchess of Gordon. The cast was executed by Sartini in 1791. *Hunterian.*

Mummies.

738. An Egyptian human Mummy, in its inner case, unopened; brought to England in the year 1820 by the late Dr. B. C. Henderson. This specimen is in a very perfect state of preservation, and affords an excellent example of the mode of embalming practised by the ancient Egyptians. The external case, or coffin (generally made of sycamore-wood), has been removed: the internal case, which more immediately envelopes the body, and partakes of its form, appears to be composed of many layers of cloth, cemented together, and faced or covered externally with a white composition, affording a smooth and uniform surface, upon which innumerable hieroglyphical devices and figures are drawn, the vivid colours of which are preserved in a remarkable degree. *Purchased. 1831.*

739. An Egyptian human Mummy, partly unwrapped; taken out of one of the sepulchres at Thebes, by the late Captain Hayes.

Presented by the late Sir David Dundas, Bart. 1812.

740. An Egyptian human Mummy, removed from its case. It appears to be that of the body of an infant not more than a year old. *Hunterian.*

741. A Mummy of an Egyptian Ibis. The earthen vase which contains it has been opened longitudinally, to expose the body of the bird; the skull and mandibles of which, as well as some of the bones of the wings and legs, are rendered visible by the removal of part of the cloth wrapper.

Hunterian.

742. The body of a Peruvian, which was found in one of the native sepulchres, or guacas, in some calcareous hills in the district of Caxamarca, in Peru. Tradition, preserved among the inhabitants of the country, stated the spot in which the body was found buried, to have been the site of a voluntary sacrifice of the life of a Curaca, one of an order of nobles immediately following in dignity the members of the blood-royal. Colonel Tomas Heres, at that time (1821) Governor of the province of

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